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REPORT

OF THE

Indian Railway Enquiry Committee.

1937

Wedgwood Railway Committee Report

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TABLE OF CONTENTS.

CHAPTER I.

Introductory.

		PAGE.
1.	Appointment of Committee	1
2.	Terms of Reference	1
3.	Constitution of Committee	1
4.	Tour of Committee	1
5.	Committee's Activities	2
6.	Acknowledgments	5
7.	Proceedings of Committee	5
8.	Unanimity of Recommendations	5
9.	Arrangement of Matter in Report	6

CHAPTER II.

General Survey of Indian Railway Administration, 1924—1936.

10.	Events immediately preceding present enquiry	6
	I.—FINANCIAL SURVEY.	
11.	Financial Position 1924—1936	7
12.	Comparison with British Railways	9
13.	Comparison with Railways of U. S. A.	9
	II.—RETRENCHMENT OF STAFF.	
14.	..	10
	III.—LEVEL OF CHARGES.	
15.	..	11
	IV.—STATISTICAL SURVEY.	
16.	..	12
17.	Operating Statistics—Coaching	12
18.	Operating Statistics—Freight	12
19.	Rolling Stock Statistics—Locomotives	13
20.	Rolling Stock Statistics—Carriages	13
21.	Rolling Stock Statistics—Wagons	13
	V.—GENERAL COMMENTS.	
22.	..	13

CHAPTER III.

Economies by Departments.

PAGE.

23. Preliminary Remarks 14

I.—TOTAL WORKING EXPENSES.

24. 14

II.—ENGINEERING DEPARTMENT.

25. 15
26. Strength of Permanent Way Gangs 16
27. Standard of Track 17
28. Possible Reduction of Maintenance Gangs 17
29. Mobile Gangs 17
30. Fencing 18
31. Gatemen 18
32. Reconditioning of Fishplates 18
33. Welding 18
34. Signalling 19

III.—MECHANICAL DEPARTMENT : ROLLING STOCK.

35. 19
36. Maintenance and Supply of Locomotive Power 20
37. Availability of Locomotives 20
38. User of Locomotives 21
39. Stock of Locomotives 22
40. Maintenance of Carriages and Wagons 23
41. Availability of Carriages 24
42. User of Carriages 25
43. Stock of Carriages 25
44. Availability of Wagons 26
45. User of Wagons 27
46. Stock of Wagons 27
47. Conclusions from Statistical Survey 28

IV.—MECHANICAL DEPARTMENT : WORKSHOPS.

48. 28
49. Workshop Organisation 29
50. Supervision 29
51. Reduction of Staff 30
52. Amalgamation of Shops : Concentration of Work 30

CHAPTER III—*contd.*

V.—MECHANICAL DEPARTMENT : RUNNING MAINTENANCE.

	PAGE.
53. Limits of Running Shed Repairs	31
54. Running Repair of Locomotives	31
55. Hot Boxes	31
56. Carriage and Wagon Examination	31
57. Damage to Wagon Buffers	31

VI.—TRAFFIC DEPARTMENT.

58. Expenditure	32
59. Acceleration of Passenger Trains	33
60. Acceleration of Goods Trains	33
61. Reduction of Loads	33
62. Transit of Traffic	34
63. Improved Connections	34
64. Turn-round of Wagons	34
65. Station Staff	35

VII.—OTHER EXPENDITURE.

66. General Departments	35
67. Accounts Staff	36
NOTE on Training of Staff for—	
(*a*) Workshop Supervision	37
(*b*) Gazetted Posts in the Mechanical Engineering Department ..	37

CHAPTER IV.

Further Possible Economies.

68. Economy Research Committees	38
69. Closing of Branch Lines	40
70. Central Publicity Bureau	41
71. First and Second Class Travel	41
72. Abolition of First Class Travel on Branch Lines	42
73. Upper Class Coupe Compartments	42
74. Capital Expenditure : Past and Future	43
75. Reduction of Wages	44
76. Application of New Scales of Pay	45
77. Salaries of Gazetted Officers	45

CHAPTER V.

Present Administration: Some Criticisms and Suggestions.

	Page.
78. Excessive Reduction of Administrative Posts	45
79. Adequacy of New Scales of Pay	47
80. Position of Accounts Department	48
81. Excessive Regulation	49
82. Audit and Accounts Regulations	50
83. Proper Function of Audit	50
84. Questions in the Legislature	52
85. Divisional Organisation	53
86. Organisation of Transportation Department in relation to Mechanical Department	54
87. Present System of Stores Purchase	54
88. Indian Stores Department	54
89. Extension of Research by Standards Office and Indian Stores Department ..	55
90. Control of Out-Station Stores	56

CHAPTER VI.

Statistics.

91.	56
92. Railway Board Statistics	56
93. Domestic Statistics	57
94. Revision of Statistics	57
95. Unnecessary Statistics	58
96. Misleading Statistics	58
97. Suggseted Additional Statistics	59
98. Conferences of Statistical Officers	59
99 Staff to interpret Statistics	60
100. Workshop Costs and Statistics	61

CHAPTER VII.

Staff Discipline and Training.

101. Complaints against Railway Employees	61
102. Incivility	62
103. Dishonesty	63
104. Disciplinary Regulations	64
105. Training and Education	65

CHAPTER VII—*contd.*

	Page.
106. Extension of Scope of Area Schools	65
107. Advanced Courses for Subordinate Grades	65
108. Examinations and Selection	65
109. Special Commercial Training	66
110. Courses to be open to Officers	66
111. Selection Committees	66
112. Lecturers	67
113.	67
114. Stimulation of Interest of Staff	67

CHAPTER VIII.

Measures to increase Revenue.

115. Neglect of Commercial Department	69
116. Remedial Measures recommended	70
(*a*) Status of Chief Commercial Manager	70
(*b*) Rates and Fares	71
(*c*) Traffic Development	71
(*d*) Research Branch	71
(*e*) Suggested Organisation on Divisions	71
(*f*) Advertising and Publicity	71
(*g*) Selection and Training of Staff	72
117. Justification of Extra Expenditure Involved	72
118. Further Suggestions for Increasing Revenue	73
(*a*) Industrial Sites	73
(*b*) Trade Advertising	74
(*c*) Catering	74
119. Rates and Fares : General Increase	75
120. Rates and Fares : Particular Increases	75
121. Coal Rates	76
122. Adjustment of Individual Charges	76
123. Rates and Fares : General Decrease	77

CHAPTER IX.

Rates and Charges.

124.	77
125. Goods Rates Structure	78
126. Revision of Rates Structure	79

CHAPTER IX—*contd.*

PAGE.

127. Class and Schedule Rates 79
128. The "Discontinuous" Mileage System 80
129. Risk Rates 82
130. Alleged Preferential Treatment of Import and Export Traffic 83
131. Rate Quotation by Individual Railways 84
132. Quotation of Rates to the Public 84
133. Railway Rates Advisory Committee 86

CHAPTER X.

Co-ordination of Road and Rail Transport.

I.—COMMENTS ON PRESENT POSITION.

134. 87
135. Development of Road Transport in India 87
136. Chaotic Conditions caused by Inadequacy of Regulation 87
137. Present Form of Regulation 87
138. Adequate Regulation of Transport Essential in Public Interest 88

II.—RAILWAY REGULATION.

139. Existing Regulation Suitable 88

III.—ROAD TRANSPORT REGULATION.

140. General Objects of Regulation 88
141. Machinery of Regulation 89
142. Regulation Common to Passenger and Goods Road Transport 90
143. Regulation in accordance with Public Need 90
144. Special Regulation of Passenger Road Transport 91
145. Special Regulation of Public Goods Road Transport 91
146. Regulation of Private Lorries 92
147. Licensing of Existing Vehicles 92
148. Legislation Necessary 92
149. Inadequacy of Police Control 93
150. Inadequacy of Data relating to Road Transport 93

IV.—TAXATION OF MOTOR VEHICLES.

151. Lack of Uniformity 93
152. Taxation of Private Lorries 94
153. Basis of Taxation of Lorries 94
154. Fuel Oil used for Road Traction 94
155. Taxation of Trailers 94

CHAPTER X—*contd.*

V.—Road Construction.

Page.

156. Responsibility 94
157. Contact between Provincial Governments and Railways 95
158. Future Road Construction 95

VI.—Railway Participation in Road Transport.

159. Powers Needed by Railways in Interests of Co-ordination 95
160. Present Railway Powers and Policy 96
161. Railway Policy Recommended : Passenger Road Services 97
162. Railway Policy Recommended : Freight Road Services 98
163. Nature of Railway Participation in Road Services 99

VII.—Future Development.

164. Co-operation between Transport Agencies 99
165. Responsibility of Licensing Authorities 100
166. Formulation of Provincial Rules 101
167. Need for Co-operation between Central and Provincial Governments .. 101

CHAPTER XI.

Road Competition : Counter Measures.

168. 102
169. Loss of Railway Traffic 102
170. Counter Measures 103

I.—Passenger Traffic Facilities.

171. Improved Speed of Services 103
172. Connections 104
173. Intensification of Service 104
174. Employment of Small Units 104
175. Amenities for Lower Class Passengers 105

II.—Modification of Fares.

176. General Reduction of Fares Undesirable 106
177. Local Reductions 107
178. Darjeeling Himalayan Railway Coupon System 107
179. Assam Bengal Railway Maximum Fare Tickets 107
180. Booking Agencies 107

CHAPTER XI—*contd.*

III.—GOODS TRAFFIC FACILITIES.

	Page.
181. Acceleration of Services	108
182. Transit Time	108
183. Clerical Formalities	109
184. Collection and Delivery	109
185. Registered Transit	110
186. Containers	110
187. Refrigerator Trucks	111
188. General Comments	111

IV.—MODIFICATION OF RATES.

189. Caution needed in Rate Reductions	112

CHAPTER XII.

Public Relations.

190. Unpopularity of Railways	113
191. Need of Improving Relations with Public	113
192. Relations with the Press : Railway Information Office	114
193. Relations with Traders	116
194. Relations with Provincial Governments	117
195. Popular Edition of Annual Report	117
196. Urgent Need of Action	117

CHAPTER XIII.

Amalgamation and Redistribution of Railways.

197. Disadvantage of Unwieldy Administrations	118
198. Drawbacks to State Management under Present Conditions	119
199. Public Ownership under the Federal Railway Authority	120
200. Need of Easing the Initial Burden of the Federal Railway Authority ..	120
201. Amalgamation of Railway Administrations	120
202. Options to Purchase	121
203. Financial Considerations	122
204. Need of a Definite Understanding	122

CHAPTER XIV.

Financial Outlook.

205. Railway Contributions to the General Revenue	123
206. Depreciation Fund	123
207. Basis of Appropriations to Depreciation Fund	125

CHAPTER XIV—*contd.*

	PAGE.
208. Appropriations to Depreciation Fund not Excessive	125
209. A New Charge upon the Depreciation Fund	126
210. General Reserve Fund	126
211. Amortisation of Capital	127
212. Prospective Railway Earnings	127
213. Railway Liability to be limited to Payment of Interest Charges	128

CHAPTER XV.

Federal Railway Authority.

214.	129
215. Political Interference	129
216. Administrative Interference	130
217. Obligation of Federal Railway Authority to meet Interest Charges	131
218. Raising of Capital by Federal Railway Authority	131
219. Government Audit	134
220. Avoidance of Excessive Centralisation in Direction and Management	135
221. Head Office of Federal Railway Authority to be in Calcutta	136
222. Designation of Agent	136

CHAPTER XVI.

Summary of Conclusions and Recommendations: Acknowledgments.

223. Summary of Conclusions and Recommendations	136
224. Acknowledgments	148

Wedgwood Railway Committee Report.

18 MAR 1938
MADRAS

INDIAN RAILWAY ENQUIRY COMMITTEE, 1936-37.

CHAPTER I.

Introductory.

1. *Appointment of Committee.*—The Indian Railway Enquiry Committee was appointed on October 20th, 1936, the appointment being made public on the same day by the Secretary of State in London, and by the Government of India in India.

2. *Terms of Reference.*—The terms of reference were as follows :—

"To examine the position of Indian state-owned railways and to suggest such measures as may, otherwise than at the expense of the general budget,

(*i*) secure an improvement in net earnings, due regard being paid to the question of establishing such effective co-ordination between road and rail transport as will safeguard public investment in railways while providing adequate services by both means of transport ; and

(*ii*) at a reasonably early date place railway finances on a sound and remunerative basis."

3. *Constitution of Committee.*—The Committee was constituted as follows :—

Sir Ralph L. Wedgwood, C.B., C.M.G. ; Chief General Manager, London and North Eastern Railway ; *Chairman.*

Mr. W. A. Stanier, M.I.Mech.E., M.I.Loco.E. ; Chief Mechanical Engineer, London, Midland and Scottish Railway ; and

Mr. H. Cheadle, D.S.O., M.C. ; Chief Traffic Manager, South African Railways.

The Committee was assisted by Mr. A. Forbes Smith, Assistant (Rates and Statistics) to the Chief General Manager, London and North Eastern Railway.

The Committee, who had no previous knowledge of Indian conditions, were accompanied during their tour round India by Sir Raghavendra Rau, then Financial Commissioner of Railways, Mr. A. E. Tylden-Pattenson, Traffic Member of the Railway Board, and Mr. B. M. Staig, C.S.I., I.C.S., who has since succeeded Sir Raghavendra Rau as Financial Commissioner of Railways.

4. *Tour of Committee.*—Sir Ralph Wedgwood, Mr. Stanier and Mr. Forbes Smith reached Bombay on November 19th, 1936, and proceeded at once to Delhi where they remained some days collecting preliminary evidence and arranging the Committee's procedure and programme. On December 1st they left Delhi for Lahore and thereafter visited Bombay, Secunderabad, Madras, Calcutta, Lucknow and Cawnpore. Special visits were paid to the metre gauge section of the Eastern Bengal Railway and to the Bihar coalfields. The Committee also took the

opportunity of visiting important passenger stations, goods stations and marshalling yards lying on or near their route. Mr. Cheadle reached Bombay on December 12th and accompanied the other members of the Committee from that place onwards. The Committee returned to Delhi on January 25th, 1937, and were occupied until February 18th with the preparation of their report. They sailed for England on February 20th and concluded their report in London. During their stay in India the Committee travelled over 7,000 miles by railway, and Mr. Stanier covered nearly 2,000 miles in addition in connection with his special inspection of the workshops mentioned in the next paragraph.

5. *Committee's Activities* : (*a*) *Interveiws with Railway Board and Railways.*—It fortunately happened that when the Committee reached Delhi the Indian Railway Conference Association were holding their autumn session. The Committee were able to attend the opening meeting when His Excellency the Viceroy addressed the Association and the President, Mr. H. N. Colam (Agent, Madras and Southern Mahratta Railway), delivered his presidential address. All the Agents of Railways were gathered in Delhi for this occasion and the Committee thus had an opportunity of holding an informal preliminary discussion with them, when they were given an idea of the information which the Committee would require at later individual interviews. While at Delhi the Committee interviewed the Railway Board and subsequently had more detailed discussions with each of the Members. Thereafter the Committee interviewed the Agents and principal officers of the following railways at the places named :—

North Western Railway	at Lahore
Great Indian Peninsula Railway ..	at Bombay
Bombay, Baroda and Central India Railway	at Bombay
Madras and Southern Mahratta Railway ..	at Madras
South Indian Railway	at Madras
East Indian Railway	at Calcutta
Eastern Bengal Railway	at Calcutta
Bengal Nagpur Railway	at Calcutta
Assam Bengal Railway	at Calcutta
Bengal and North Western Railway ..	at Lucknow.

While in Delhi the Committee received an invitation from the Government of His Exalted Highness the Nizam to visit Secunderabad and, feeling that much useful information could be obtained there in regard to the road transport services run by His Exalted Highness the Nizam's State Railway, decided, with the concurrence of the Government of India, to devote a day to Secunderabad on their way to Madras. The time was well spent, thanks to Major E. W. Slaughter, M.B.E., Agent of His Exalted Highness the Nizam's State Railway, for he had prepared as the basis of discussion with the Committee a valuable memorandum on the subject of the motor transport services run by the railway. The Committee are grateful to the Government of His Exalted Highness the Nizam

for giving them the opportunity of visiting Secunderabad, and to Major Slaughter and his officers for all they did to make the visit both useful and enjoyable.

(b) *Mr. Stanier's Inspection of Railway Workshops.*—During the Committee's tour, Mr. Stanier inspected the following workshops on the dates shown :—

Railway.	Workshops at	Date.
North Western (Locomotive, Carriage and Wagon Shops)	Moghalpura ..	December 7, 1936.
Bombay, Baroda and Central India (Broad Gauge Locomotive Shops)	Dohad	December 9, 1936.
Great Indian Peninsula (Carriage and Wagon Shops)	Matunga ..	December 10, 1936.
Great Indian Peninsula (Locomotive Shops)	Parel	December 10, 1936.
Bombay, Baroda and Central India (Broad Gauge Carriage and Wagon Shops) ..	Parel	December 10, 1936.
South Indian (Locomotive, Carriage and Wagon Shops)	Golden Rock ..	December 21, 1936.
Madras and Southern Mahratta (Locomotive, Carriage and Wagon Shops)	Perambur ..	December 22, 1936.
East Indian (Carriage Frame Works) ..	Tatanagar ..	January 11, 1937.
Bengal Nagpur (Locomotive, Carriage and Wagon Shops)	Khargpur ..	January 12, 1937.
East Indian (Carriage and Wagon Shops ..	Lilloah	January 13, 1937.
Eastern Bengal (Broad Gauge Locomotive Carriage and Wagon Shops)	Kanchrapara ..	January 14, 1937.
East Indian (Locomotive Shops)	Jamalpur ..	January 16, 1937.
East Indian (Locomotive, Carriage and Wagon Shops)	Lucknow ..	January 19, 1937.

While the Committee were in Bombay, Mr. Stanier proceeded to Bhusawal to inspect the running shed at that place. He also inspected running sheds and carriage and wagon repair lines as under :—

Railway.	Running Sheds at
North Western Railway	Lahore.
South Indian Railway	Trichinopoly.
Eastern Bengal Railway	Sealdah (Narculdanga Shed).
East Indian Railway	Jamalpur.
East Indian Railway	Lucknow.
	Carriage and Wagon Repair Lines at
North Western Railway	Lahore.
East Indian Railway	Moghal Sarai.
East Indian Railway	Lucknow.

During these inspections Mr. Stanier was accompanied by the principal officers of the mechanical department of the railways concerned. Mr. J. M. D. Wrench, C.I.E., Chief Controller of Standardisation with the Railway Board, accompanied Mr. Stanier on his visits to Tatanagar, Khargpur, Lilloah and Jamalpur. On the return of the Committee to Delhi, Mr. Stanier and Mr. Cheadle visited the metre gauge shops at Ajmere of the Bombay, Baroda and Central India Railway.

(*c*) *Interviews with Officials of the Government of India.*—At Delhi the Chairman of the Committee was granted personal interviews by Sir Frank Noyce, K.C.S.I., C.B.E., I.C.S., Honourable Member for Industries and Labour; Sir James Grigg, K.C.S.I., K.C.B., Honourable Member for Finance; and Sir Muhammad Zafrullah Khan, K.C.S.I., Bar-at-Law, Honourable Member for Commerce and Railways. The Committee also discussed the question of co-ordination of road and rail transport with Mr. K. G. Mitchell, C.I.E., Consulting Engineer for Roads with the Government of India.

(*d*) *Interviews with Provincial Governments.*—The Committee were anxious to obtain the views of Provincial Governments on matters related to the terms of reference, and especially in regard to co-ordination of road and rail transport. They accordingly addressed the following Governments, inviting them, if His Excellency the Governor in Council saw fit, to nominate representatives to meet the Committee and give them the views of Government :—Assam, Bengal, Bihar, Bombay, Central Provinces, Madras, the North West Frontier Province, Orissa, the Punjab, Sind and the United Provinces of Agra and Oudh. It was, unfortunately, impossible for the Committee to visit the capital of every Provincial Government, and when this could not be done the Provincial Government was asked to send representatives to meet the Committee at the nearest commercial centre. The Committee had the opportunity of discussing matters arising out of their terms of reference with the representatives of the following Governments :—Assam, Bengal, Bombay, Madras, the Punjab and the United Provinces. The Committee did not originally issue any questionnaire in connection with these interviews, but subsequently found it desirable to ask for information on the methods of regulation of road transport adopted in each Province and for statistics of road traffic. In addition to these discussions, the Chairman had the honour of being granted interviews by Their Excellencies the Governors of Bengal, Bombay, the Punjab and the United Provinces.

(*e*) *Interviews with Chambers of Commerce and other Commercial and Industrial Bodies.*—The Committee felt that it was important to get into touch with commercial bodies throughout India, in so far as this could be arranged during their tour. They accordingly invited the organisations enumerated below to send a memorandum of their views and to supplement this by oral evidence at a subsequent interview:—

The Northern India Chamber of Commerce ..	Lahore
The Indian Chamber of Commerce ..	Lahore
The Bombay Chamber of Commerce ..	Bombay
The Passenger and Traffic Relief Association	Bombay
The Indian Merchants' Chamber ..	Bombay
The Indian Road Transport and Development Association.	Bombay
The Madras Chamber of Commerce ..	Madras
The South Indian Chamber of Commerce ..	Madras
The Bengal Chamber of Commerce ..	Calcutta

The Bengal National Chamber of Commerce ..	Calcutta
The Indian Chamber of Commerce ..	Calcutta
The Indian Mining Association	Calcutta
The Indian Mining Federation	Calcutta
The Indian Colliery Owners' Association ..	Calcutta
The Upper India Chamber of Commerce ..	Cawnpore.

No questionnaire was issued by the Committee in preparation for these interviews as the Committee felt it was better to allow the organisations to express their views freely on the problems included in the terms of reference.

(*f*) *Further Activities on Return to Delhi.*—On their return to Delhi the Committee, with the concurrence of the Government of India, interviewed representatives of the All India Railwaymen's Federation. They inspected the offices of the Indian Railway Conference Association and discussed with the General Secretary, Mr. Lawrence, the arrangements for wagon interchange. They visited the Railway Clearing Accounts Office and the Central Publicity bureau, and interviewed the Controller of Railway Accounts. They had further consultations with Members of the Railway Board.

The Chairman also interviewed Sir Ernest Burdon, K.C.I.E., C.S.I., I.C.S., Auditor General ; Sir James Pitkeathly, C.M.G., C.I.E., C.V.O., C.B.E., D.S.O., Chief Controller, Indian Stores Department ; and Major-General Sir Arthur Moens, K.C.B., C.M.G., D.S.O., Quarter-Master-General ; and was granted further interviews by Sir Frank Noyce, Sir James Grigg and Sir Muhammad Zafrullah Khan.

6. *Acknowledgments.*—The Committee wish to record their thanks to all those, official and non-official alike, who accepted their invitation to an interview. Owing to the limited time available it was necessary for the committee to curtail the number of places visited ; it was equally necessary, at such places as they did visit, for the Committee to appoint their own place of meeting, usually in the headquarters of one of the railways. The Committee's acknowledgments are due to the Agents of those railways who placed office accommodation at the Committee's disposal. The Committee are well aware that in many cases this courtesy must have occasioned no little inconvenience.

7. *Proceedings of Committee.*—The limited time available made it impossible for the Committee to record verbatim the evidence furnished to them at the many interviews and discussions they had during their tour. Nor was it possible to add as appendices to this report the numerous memoranda submitted to the Committee ; certain chambers of commerce and other commercial bodies have, however, given publicity to their memoranda in the press.

8. *Unanimity of Recommendations.*—The report, which the Committee now have the honour to submit, contains their unanimous conclusions and recommendations.

9. *Arrangement of Matter in Report.*—The matter in the report is divided into chapters, dealing with the subjects noted against each as under :—

Chapter I Introductory.
,, II General Survey of Indian Railway Administration 1924—1936.
,, III Economies by Departments.
,, IV Further Possible Economies.
,, V Present Administration : Some Criticisms and Suggestions.
,, VI Statistics.
,, VII Staff Discipline and Training.
,, VIII Measures to increase Revenue: Development of Commercial Department.
,, IX Rates and Charges.
,, X Co-ordination of Road and Rail Transport.
,, XI Road Competition : Counter Measures.
,, XII Public Relations.
,, XIII Amalgamation and Redistribution of Railways.
,, XIV Financial Outlook.
,, XV Federal Railway Authority.
,, XVI Summary of Conclusions and Recommendations : Acknowledgments.

CHAPTER II.

General Survey of Indian Railway Administration, 1924—1936.

10. *Events Immediately Freseding Present Enquiry.*—We begin this survey of Indian railway administration by describing briefly the course of events immediately preceding the setting up of this Committee.

The Government of India Act, 1935, brought about a new financial relationship between the Central Government and the Provinces. On the 6th April, 1936, Sir Otto Niemeyer submitted a report to His Majesty's Secretary of State for India upon certain provisions of the Act bearing on this relationship. In that report emphasis was laid upon the importance of the contribution made by the state-owned railways to the general budget, and concern at the financial position of the railways was expressed in the following terms :—

> "The position of the railways is frankly disquieting. It is not enough to contemplate that in five years' time the railways may merely cease to be in deficit. Such a result would also tend to

prejudice or delay the relief which the Provinces are entitled to expect. I believe that both the early establishment of effective co-ordination between the various modes of transport and the thorough-going overhaul of railway expenditure in itself are vital elements in the whole Provincial problem."

The importance of the railway contribution was further stressed in the Report of the Public Account's Committee on the Accounts of 1934-35 published on September 5th, 1936. After dealing with alternative means by which the financial position of the railways might be improved, the Report proceeded :—

> "...... even after allowing for a continuous if moderate trade improvement, for all probable debt conversions and for the effect of the revised pay scales for new entrants we cannot see how, at the end of three years from now, the railways can be less than 7 or 8 crores short of full commercial solvency. There would moreover still be a substantial deficit if we regard it as legitimate to go on making no provision from revenue for writing down capital and equally this would be the case if credit is taken for the losses on strategic railways and for charging Government Departments full public rates—changes which we repeat we by no means recommend.
>
> This is an alarming prospect and in our view things cannot be left where they now are. We would urge therefore that the Government of India should immediately obtain the services of an acknowledged expert in railway management to conduct an examination of the whole field and recommends steps which will secure definite (*i.e.,* other than mere hopes of increased revenue due to improving trade) improvements in railway finances to the extent of something like 3 crores a year immediately and ultimately of such magnitude as is required to maintain full solvency on a strict accounting basis. And to avoid misconception we add that the terms of reference should exclude the possibility of securing this end by a mere transfer of liabilities to general revenues."

We have kept these statements in mind in interpreting the scope of our terms of reference.

I.—Financial Survey.

11. *Financial Position 1924—1936.*—We began our enquiry by making a study of the financial position of the railways since railway accounts were separated from the general budget in 1924.

A statement of the financial position of Indian state-owned railways was submitted to us by the Railway Board and is here reproduced. In certain respects the figures are not strictly comparable year by year but they are sufficiently accurate for the purpose of the present broad survey. The nature of the adjustments to be made and their effect are fully explained in Volume I, Chapter II, of the Report by the Railway Board on Indian Railways for 1935-36.

Financial Statistics of Indian State-owned Railways from 1924-25 to 1935-36. (See *paragraph 11.*)

—	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.
Mileage	26,985	27,090	27,664	28,086	29,111	30,878	31,197	31,640	31,642	31,644	31,636	31,782
Capital at charge at end of year (in crores)	635	654	681	714	739	770	783	790	789	787	787	789
	(Figures in lakhs of rupees).											
Gross traffic receipts	1,00,13	98,94	98,42	1,03,43	1,03,73	1,20,70	95,10	86,63	84,43	86,63	90,20	90,65
Operating expenses	51,65	52,99	52,89	53,06	54,22	55,59	54,39	49,31	49,08	49,50	50,27	50,87
Depreciation Fund	10,35	10,67	10,89	11,38	12,00	12,59	13,07	13,46	13,77	13,56	13,72	13,25
Net traffic receipts	38,13	35,28	34,64	38,99	37,51	34,52	27,64	23,86	21,58	23,57	26,21	26,53
Net Miscellaneous receipts after deducting miscellaneous charges and surplus profits payable to companies ..	—1,07	—1,19	—1,27	—87	—37	—2	—11	1	1,10	1,05	53	87
Net revenue	37,06	34,09	33,37	38,12	37,14	34,50	27,53	23,87	22,68	24,62	26,74	27,40
Interest charges	23,90	24,81	25,87	27,27	29,33	30,46	32,72	33,07	32,91	32,58	31,80	31,39
Surplus	13,16	9,28	7,50	10,85	7,81	4,04	—5,19	—9,20	—10,23	—7,96	—5,06	—3,99
Paid as contribution to general revenues ..	6,78	5,49	6,01	6,28	5,23	6,12	5,74	..	..	..	..	..
Transferred to railway reserve	6,38	3,79	1,49	4,57	2,58	—2,08	—10,93	—4,95	..	..	..	..
Ratio of working expenses (excluding Depreciation Fund) to *Gross Traffic Receipts*	51·6%	53·6%	53·7%	51·3%	52·3%	54·1%	57·2%	56·9%	56·7%	55·8%	54·7%	54·9%
Ratio of working expenses (including Depreciation Fund) to *Gross Traffic Receipts*	6·9%	64·3%	64·8%	62·3%	63·8%	66·4%	70·9%	72·5%	73·0%	71·4%	69·9%	69·5%
Ratio of Net Traffic Receipts to capital at charge	6·0%	5·4%	5·1%	5·5%	5·1%	4·5%	3·5%	3·0%	2·7%	3·0%	3·3%	3·4%

The statement covers the period of twelve years from 1924-25 to 1935-36. In each of the first six years, after provision had been made for depreciation and interest charges, there was a surplus of revenue ; in each of the last six years there was a deficiency. The surplus was at its highest, *viz.*, Rs. 13,16 lakhs, in 1924-25. In 1930-31 the period of deficiencies began and reached its lowest level with a deficiency of Rs. 10,23 lakhs in 1932-33. Since then there has been a gradual improvement until in 1935-36 the deficiency was reduced to Rs. 3,99 lakhs.

Taking the period as a whole, the total surplus revenue earned in the first six years amounted to Rs. 52,64 lakhs, whilst in the second six years the deficiency amounted to Rs. 41,63 lakhs. For the twelve years as a whole, therefore, there was a net surplus of Rs. 11,01 lakhs, or rather less than one crore of rupees per annum.

Gross traffic receipts reached their peak in 1928-29 and dropped only slightly in the succeeding year. It was in 1930-31 that the effect of economic depression made itself seriously felt, and the next two years shewed further successive reductions in earnings. From 1933-34 a slight revival set in and the tendency has since been maintained.

In the six years before the depression the gross traffic receipts stood at approximately Rs. 100 crores, and in 1935-36 they were about 10 per cent. below that figure. In the meantime the capital at charge had increased substantially, and particularly so during the period from 1926—1930. The total advanced from Rs. 635 crores in 1924-25 to Rs. 789 crores in 1935-36, and the interest charges from Rs. 23,90 lakhs in 1924-25 to Rs. 31,39 lakhs in 1935-36.

The effect of increased capital and decreased earnings is reflected in the ratio of net traffic receipts to capital at charge. The figure stood at 6.0 per cent. in 1924-25 and fell to 2.7 per cent. in 1932-33. Since that date it has shown some improvement and stood at 3.4 per cent. in 1935-36.

Both in the period of acute depression, and in the years of partial recovery succeeding it, the railways of India showed more favourable results than the railways of other countries which passed through a similar crisis, such as Great Britain and the United States of America.

12. *Comparison with British Railways.*—The peak of post-war prosperity for the British railways was in 1929, when gross railway receipts amounted to £182.8 million and working expenditure to £143.9 million, and the net revenue of the whole undertakings represented a return of 4.2 per cent. on capital.

The year 1932 saw the British railways at the lowest ebb of their fortunes. Gross railway receipts had dropped to £145.3 million and working expenditure to £121.3 million, and the percentage return on capital had fallen to 2.4 per cent.

In 1936 gross railway receipts had recovered to £156.9 million, working expenditure had risen to £126.7 million, and the return on capital had increased to 3.1 per cent. These figures exclude the disturbing effect of credits due to the decision of the courts on rating and railway freight rebates.

13. *Comparison with Railways of U. S. A.*—In 1929 the railway gross earnings of Class I railways in the United States of America amounted to 6,280 million dollars and railway working expenses to 4,506 million dollars. The net operating revenue represented a return on capital at the rate of 4.8 per cent.

In 1932 the railway gross earnings fell to 3,127 million dollars and railway working expenses to 2,403 million dollars, and net operating revenue represented only 1.3 per cent. on capital.

The position in 1936 was better. Railway gross earnings amounted to 4,053 million dollars, railway working expenses to 2,931 million dollars, and net operating revenue represented 2.6 per cent. on capital.

It is convenient for purposes of comparison to set out these results in tabular form :—

	India. (Lakhs of rupees.)			Great Britain. (£ million.)			U. S. A. (Million dollars.)		
Gross Earnings ..	1929/30	1,02,70	100	1929	182·8	100	1929	6,280	100
	1932/33	84,43	82	1932	145·3	79	1932	3,127	50
	1935/36	90,65	88	1936	156·9	86	1936	4,053	65
Working Expenses ..	1929/30	68,18	100	1929	143·9	100	1929	4,506	100
	1932/33	62,85	92	1932	121·3	84	1932	2,403	53
	1935/36	64,12	94	1936	126·7	88	1936	2,931	65
Percentage Return ..	1929/30	4·5		1929	4·2		1929	4·8	
	1932/33	2·7		1932	2·4		1932	1·3	
	1935/36	3·4		1936	3·1		1936	2·6	

In these figures full provision for depreciation is included in the working expenses of the Indian railways. On the other hand the British railways do not all make specific provision for depreciation, and taking them as a whole it is true to say that economies were to some extent effected at the expense of renewals and replacements. This is also true, and to a greater degree, of the railways of the United States as a whole, although not necessarily of each individual railway.

Judged by the percentage return on capital the railways of India come very well out of the comparison. They maintained their position at a higher level during the period of depression, and in the most recent year have more nearly returned to the 1929 level of prosperity.

II.—Retrenchment of Staff.

14. The retrenchment policy of the Indian state-owned railways is reflected in the reduction in the number of staff on the census dates, *i.e.*, 31st March 1930 and 1936. The total number of staff as between these two dates was reduced from 712,198 to 597,396, a reduction of 114,802 or 16 per cent.

Excluding staff engaged on new construction the reduction was from 698,125 to 596,584, a reduction of 101,541 or 15 per cent.

Between the years 1929-30 and 1935-36 the total cost of staff was reduced from Rs. 36,16 lakhs to Rs. 32,88 lakhs, a reduction of 9 per cent. These figures of cost include staff engaged on new construction, as separate figures for cost of open line and construction staff are not available.

On the railways of Great Britain the total number of staff at census date in March 1930 was 627,989. On the corresponding census date in 1936 the figure had been reduced to 559,356, a reduction of 11 per cent.

Between the years 1930 and 1936 the total salaries and wages bill of the British railways was reduced from £110.7 million to £99.5 million, a reduction of 10 per cent.

On Class I railways of the United States of America the total number of staff in 1929 was 1,660,850. In 1936 this figure had been reduced to 1,065,000, a reduction of 36 per cent. The salaries and wages costs in the corresponding years were reduced from 2,897 million dollars to 1,801 million dollars, a reduction of 38 per cent.

The following table summarises these figures and includes the intermediate year when retrenchment had been carried to its furthest limit :—

	India.			Great Britain.			U. S. A.		
Number of Staff.	1930	712,198	100	1930	627,989	100	1929	1,660,850	100
	1934	587,972	83	1933	539,278	86	1933	971,196	58
	1936	597,396	84	1936	559,356	89	1936	1,065,000	64
	Lakhs of rupees.			*£ million.*			*Million dollars.*		
Cost of Staff.	1929/30	36,16	100	1930	110·7	100	1929	2,897	100
	1933/34	31,77	88	1933	92·6	84	1933	1,404	48
	1935/36	32,88	91	1936	99·5	90	1936	1,801	62

These figures should be interpreted in the light of the diminution in gross earnings in each of the three countries, since the volume of traffic carried is naturally the prime factor in fixing the limits of staff reduction. The effect of the depression was most noticeable in the United States, whilst it was less severe in India than in Great Britain. The reductions effected fairly reflect this comparison.

III.—Level of Charges.

15. Our financial survey would not be complete without some reference to the question of charges. The primary duty of the Indian railways is to serve the public of India, and a comparison of the level of fares and rates in India with the level in other countries is therefore appropriate at this stage, and important.

In the volume of statistics published by the International Union of Railways for 1935 a comparative table is given showing the average charge for passengers and for goods traffic respectively in all the more important countries of the world. The figures are given, on a comparable gold basis, in centimes per passenger kilometre and per ton kilometre. We extract the following :—

	Average Receipt per Passenger Kilometre.	Ton Kilometre.
Italy	4·14	4·56
Germany	2·96	4·32
Great Britain	2·39	4·83
France	2·41	4·49
South Africa	..	3·26
Canada	3·98	1·84
U. S. A.	3·69	1·84
Argentine Republic	2·02	2·57
India	1·25	2·50
Japan	1·00	1·39

The statement shows that, as judged by average unit charges, the railways of India compare favourably with those of any other country with which a comparison can profitably be made.

IV.—Statistical Survey.

16. We have carried out a broad review of the working of the Indian state-owned railways year by year since 1924-25, and more particularly during the period 1929-30 to 1935-36, as reflected in those statistics which are regarded as the most useful indices of efficiency.

17. *Operating Statistics—Coaching.*

(*a*) Average time-table speed.

There is a general improvement under this head, and in the case of some of the railways the improvement is substantial. Even so, the highest average time-table speed for mail and important trains is only 32 miles per hour, and we are of opinion that there is room for considerable acceleration ; (see paragraph 59).

(*b*) Punctuality.

Here, too, there has been a consistent improvement. Statistically a high standard of punctuality has been obtained. We believe that the maintenance of this standard is quite consistent with a higher general level of speed.

(*c*) Percentage of train engine hours to total engine hours.

(*d*) Light and assisting not required engine miles per 100 train miles.

The trend of these statistics has on the whole been somewhat unsatisfactory. They provide a case for a detailed examination with the object of reducing the unproductive work of locomotives.

18. *Operating Statistics—Freight.*

(*a*) Train miles per train engine hour.

Every railway, without exception, records an improvement under this head, but, as in the case of passenger services, we consider there is room for further acceleration ; (see paragraphs 60 and 62).

(*b*) Percentage of train engine hours to total engine hours.

(*c*) Light and assisting not required engine miles per 100 train miles.

These statistics show consistent improvements and indicate a progressive increase in the efficiency of freight operation.

(*d*) Average train load.

(*e*) Average wagon load.

(*f*) Number of loaded wagons per train.

(*g*) Percentage of loaded wagons to total number of wagons.

(*h*) Net ton miles per total engine hour.

All these statistics point to an increase in the loading of trains. The statistic " net ton miles per total engine hour " is usually regarded as the

best single index of freight operating efficiency. On all railways, with only one exception, improvements are recorded. We are of opinion, however, that too much attention has been given to loading to the detriment of efficient and expeditious service ; (see paragraphs 61 and 188).

19. *Rolling Stock Statistics—Locomotives.*

(*a*) Percentage of average number under or awaiting repair daily to average total number on line.

Certain railways record an improvement under this head and others the reverse. We are of opinion that the number of engines under or awaiting repair is, in general, too high ; [see paragraphs 37 and 47 (*a*)].

(*b*) Average number in use daily and maximum number in use on any one day in relation to average number available for use.

(*c*) Engine miles per day per engine.

(*i*) On line.

(*ii*) In use.

The trend of these statistics indicates that there is scope for improvement ; [see paragraphs 38, 39 and 47 (*c*) and (*d*)].

(*d*) Coal consumption.

Generally speaking there has been a considerable improvement in coal consumption as measured by pounds consumed per engine mile. This has been effected in spite of the increased use of second grade coal.

20. *Rolling Stock Statistics—Carriages.*

(*a*) Percentage of number under or awaiting repair daily to average total number on line.

The trend is unfavourable in the case of most railways. Judged by other standards the figures generally are too high ; [see paragraphs 41 and 47 (*a*)].

(*b*) Vehicle miles per vehicle day.

There is a general falling off which indicates inadequate user of carriage stock ; [see paragraphs 42 and 47 (*c*)].

21. *Rolling Stock Statistics—Wagons.*

(*a*) Percentage of average number of unserviceable wagons to average total number on line daily.

These figures, because of their make-up, are valueless as a measure of the proportionate number of wagons out of service for repair ; [see paragraphs 44 and 47 (*b*)].

(*b*) Wagon miles per wagon day.

This statistic shows a falling off in wagon user ; [see paragraphs 45 and 47 (*c*)].

V.—General Comments.

22. Our general survey of the Indian state-owned railways from 1924 to 1936 shows that their financial results are better than those of other comparable railway systems, whilst their operating statistics indicate that

there has been a substantial advance in efficiency and economy of management since the depression began in 1930. At the same time the figures suggest certain directions in which improvement might be effected, and we deal with these in later paragraphs of this Report.

CHAPTER III.

Economies by Departments.

23. *Preliminary Remarks.*—In the preceding chapter we examined broadly the reduction effected in railway working expenses between 1929-30 and 1935-36. In making that examination we took the figures as published in the Administration Report of the Railway Board, without attempting to make adjustments so as to place the results on a strictly comparable basis.

Our present purpose is to make a more particular examination of the economies effected so as to reveal their incidence over the different administrations both as a whole and by departments. With this object in view we made preliminary abstracts of the results published in Volume II of the Administration Report and asked the Agents to suggest any adjustments that should properly be made in order to make the figures comparable. These suggestions were subsequently passed on to the Controller of Railway Accounts for scrutiny, and were accepted by him as fit and proper adjustments to be made for the purpose in view.

The principal adjustment is in respect of released materials, which were dealt with by different accountancy methods in the two years. In the figures which we have adopted the effect of credits from released materials has been eliminated both from gross earnings and from working expenses.

I.—Total Working Expenses.

24. The following table shows a comparison of the total working expenses of the individual administrations. The figures for the state-managed railways include appropriations to the depreciation fund ; those for the company-managed railways include actual expenditure on replacements and renewals :—

(*Rupees in Lakhs.*)

Railways.	As published in the Report (Vol. II).			Adjusted Figures.		
	1929-30.	1935-36.		1929-30.	1935-36.	
	Rs.	Rs.	Percentage of 1929-30.	Rs.	Rs.	Percentage of 1929-30.
A. B.	1,43	1,40	98	1,46	1,41	97
B. N.	7,80	6,10	78	7,79	6,00	77
B. B. & C. I.	7,72	6,63	86	7,92	6,76	85
E. B.	4,77	4,57	96	4,83	4,50	93
E. I.	12,43	11,80	95	13,03	11,81	91
G. I. P.	10,52	9,23	88	10,91	9,23	85
M. & S. M.	4,98	4,56	92	5,07	4,56	90
N. W.	13,59	12,02	88	13,99	12,02	86
S. I. ..	3,97	3,39	85	4,06	3,39	83
Total	67,21	59,70	89	69,06	59,68	86

This table shows the trend of railway expenditure as a whole. It will, however, be more illuminating to analyse the figures into the principal abstracts, eliminating for this purpose the appropriations to depreciation fund on state-managed railways and expenditure on replacements and renewals on company-managed railways.

II.—Engineering Department.

25. The following table shows the expenditure on maintenance of structural works :—

Maintenance of Structural Works.

(Rupees in Lakhs.)

Railways.	As published in the Report (Vol. II). 1929-30.	1935-36.		Adjusted Figures. 1929-30.	1935-36.	
	Rs.	Rs.	Percentage of 1929-30.	Rs.	Rs.	Percentage of 1929-30.
A. B.	25	30	120	28	29	104
B. N.	72	94	131	98	94	96
B. B. & C. I.	90	76	84	100	78	78
E. B.	77	72	94	83	65	78
E. I...	1,43	1,35	94	1,83	1,35	74
G. I. P.	1,13	1,05	93	1,48	1,05	71
M. & S. M.	45	63	140	62	60	97
N. W.	2,05	1,72	84	2,38	1,72	72
S. I.	39	49	126	44	49	111
Total ..	8,09	7,96	98	9,84	7,87	80

An over-all reduction of 20 per cent. in this abstract may be regarded as very creditable, and particularly so as the figures exclude the effect of any immediate economy brought about by the postponement of renewals. It is true that work on non-essential repairs was cut drastically in the years immediately following the slump, and this had to be made good in subsequent years, with consequential inflation of the expenditure in 1934-35 and 1935-36. We are assured, however, that arrears of this kind have in general been overtaken. The reduction of 20 per cent. in the total expenditure in this abstract may therefore be regarded as a real economy.

This has been effected by various measures. Gang strengths have been reduced ; lines have been reclassified so as to permit of lower standard of maintenance on less busy sections ; unnecessary sidings and crossings have been removed ; old material has been reclaimed and reused ; patrolling has been discontinued where this has proved possible without detriment to safety ; and experiments have been made with the trolley system of maintenance and with the use of welding for repair purposes.

The results achieved by the individual administrations, as shown by the figures quoted, are unequal, but a comparison of this kind can easily be carried too far. Allowance should be made, amongst other things, for increase in route mileage ; the South Indian Railway, for example, increased its route mileage by 8 per cent. during the period under review.

26. *Strength of Permanent Way Gangs.*—As an additional means of measuring the economies effected we obtained from each railway a statement showing the number of permanent way staff employed in selected years. We have expressed these figures in terms of number of men per track mile, and summarise them below, at the same time indicating the percentage variation from the 1929-30 figures :—

Statement showing number of men (mates, keymen and gangmen) per track mile on selected Class I Railways for the years 1929-30 and 1935-36.

Railways.	1929-30. No.	1935-36. No.	% of 1929-30.
Broad Gauge.—			
B. N. ..	3·2	2·8	88
B. B. & C. I.	2·9	2·8	97
E. B. ..	2·8	2·9	104
E. I. ..	3·6	2·6	72
G. I. P.	3·0	2·7	90
M. & S. M.	3·4	3·1	91
N. W. ..	2·6	1·8	69
S. I. ..	2·6	2·6	100
Total ..	3·0	2·5	83
Meter Gauge.—			
A. B. ..	2·7	2·7	100
B. B. & C. I.	2·3	2·1	91
E. B. ..	2·3	2·3	100
M. & S. M.	2·5	2·5	100
S. I. ..	2·4	2·3	96
Total ..	2·5	2·5	100
B. & N. W.	2·4	2·3	96
R. & K.	2·2	2·2	100

We have included in the above table the results of the Bengal and North Western and the Rohilkund and Kumaon Railways because the widespread reputation enjoyed by these railways for economical working lends special interest to the figures. The state-owned railways emerge from this comparison without discredit.

The figures are interesting as supplying a rough coefficient for measuring the effectiveness of permanent way labour on different systems, and at different dates, but here again it is unwise to make too much of the comparison between different systems, bearing in mind the wide variations which exist in climate, and soil, in traffic and type of labour employed. The results as a whole, however, indicate that a considerable saving has been effected. The reduction in numbers of over 30 per cent. achieved by the North Western Railway is particularly noteworthy.

We have referred to the principal measures adopted in the engineering department to reduce expenditure. In the following paragraphs we allude to questions relating to permanent way which have come to our notice in evidence or through observation, and particularly to directions in which it seems to us that the search for economies might be pursued with greater vigour.

27. *Standard of Track.*—The permanent way is maintained up to a reasonable standard. The main line track is solid enough to stand up to the highest speed of the best expresses, and we see no occasion to make any higher demand. Both main line and branch line track could, in fact, support a considerable acceleration of the slower passenger trains, and of freight trains generally.

28. *Possible Reduction of Maintenance Gangs.*—Further steps should be taken to reduce the number of staff engaged on ordinary maintenance :

(*a*) A detailed examination of each section of line should be made on the basis of units of work done. If this is systematically carried out we believe that certain sections at least will be found to be overstaffed, as in fact was found to be the case in Great Britain. Several of the administrations admitted that they had an excessive number of men employed but were unwilling to dismiss them, preferring to await a reduction in numbers by normal retirement. Possibly the reduction might be accelerated by transferring some of the surplus men, temporarily at least, to other forms of railway employment. If this cannot be done, there would seem to be no choice but to discharge them, with an understanding as to re-employment when vacancies occur.

(*b*) Some administrations have been able to economise by increasing the lengths supervised without increasing the number of men in the gang. The possibility of extending this should be investigated.

29. *Mobile Gangs.*—Both in Great Britain and in South Africa much has been done to reduce the cost of permanent way maintenance by the employment of large gangs with motor trolleys to cover lengths equal to four or five times the normal length previously supervised by one gang. This system not only saves labour, but makes it possible to put a more skilled man in charge of the gang, and in Great Britain at least it has made for a better standard of maintenance. The saving is considerable and in the case of one British railway has amounted to the equivalent of more than 10 lakhs of rupees per annum.

In South Africa the system has been applied with success to a number of lightly worked branch lines.

In spite of the difference in circumstances we see no reason why economies similar in character, though perhaps less in amount, should not be realised in India.

30. *Fencing.*—We notice that some railways do not fence their permanent way ; others apparently did so at one time but have abandoned the fencing to decay, whilst others again maintain their fencing in first class condition. With all allowance for differences in density of population, there is no apparent reason why the cheapest practice should not be adopted as the standard. We recommend therefore that, except in suburbs and industrial areas and in the immediate neighbourhood of important level crossings, the maintenance of fencing should be abandoned.

31. *Gatemen.*—Some administrations appear to employ gatemen much more freely than other ; in certain areas the numbers appeared to us to be excessive. We appreciate that there are often special difficulties in reducing their number and that it is necessary to secure the goodwill of the local authorities. We consider however that the question should be followed up and that their employment should be limited in principle to the more important crossings.

32. *Reconditioning of Fishplates.*—Much progress has been made in Great Britain in reconditioning permanent way material which would at one time have been regarded as scrap. A notable instance of this is the reconditioning of fishplates.

After a normal life in the track, these are frequently worn in the centre. It has been found possible to recondition them for another life by the use of suitable tools under a drop stamp. This represents a very substantial economy and it is recommended that arrangements should be made to carry out this work wherever drop stamps are installed.

Drawings of the type of tools used are available in the office of the Chief Controller of Standards.

33. *Welding.*—The Indian railways do not appear to have availed themselves, to the same extent as railways elsewhere, of the economies to be realised by the modern practice of autogenous welding.

The repair of bridges offers special scope for economy by this process, which enables renewal to be postponed for a considerable period at a very small expense. Some of the administrations are experimenting with the application of the welding process to bridge renewals and repairs but it has passed far beyond the experimental stage in other countries and should be pushed forward much more boldly in India.

The use of welding in reconditioning and building up permanent way material is also long past the experimental stage and its application is becoming more general as engineers appreciate its flexibility and reliability, and the economies that can be affected by its use.

On of the most important uses to which welding is applied on permanent way work in Great Britain, South Africa and elsewhere is the

reconditioning of crossings. In this direction considerable success both from a practical and economical point of view has been attained. It is estimated that by this means the life of a crossing is extended by 50 to 70 per cent. at less than 25 per cent. of the cost of a new crossing.

In South Africa some years ago short lengths of rail, varying from 21 to 24 feet and generally regarded as scrap, were welded into 69 and 72 feet lengths and used in the construction of a branch line. The cost of rails and fastenings worked out at aproximately one-third of the cost of new material.

The reduction in the number of rail joints is a subject of research by most railways. Rail joints are the weakest point of the track and their maintenance occupies a large percentage of the labour necessary for the upkeep of the track as a whole. The welding of alternate rail joints to give from 80 to 120 feet lengths has been successfully undertaken on railways in America and in Europe, and the results of these experiments should be closely watched. The possibilities of reduction in maintenance costs are considerable apart from other advantages.

In South Africa minor tools and plant are being economically repaired by welding, and accessories such as speed boards, grade posts and whistle boards have been made by welding scrap plates to old rails.

34. *Signalling.*—The signalling adopted in India has been more expensive than the circumstances have justified. Consideration is being given to the possibility of simpler and cheaper methods and this investigation should be pushed forward. We believe that the system adopted in South Africa would be found worthy of imitation. There, at passing places on single lines, a central cabin with wire-worked points at a considerable distance on each side is found adequate even on main lines. This should be substantially cheaper than the two-cabin system prevalent in India.

In Great Britain large economies have been realised by the extension of power signalling, but this demands an intensity of traffic which is seldom found in India. It could therefore be recommended only in exceptional cases. Even in such cases the saving to be realised should be worked out very carefully beforehand, and the work should be undertaken only when an adequate return on the capital involved, say 10 per cent., is assured.

The same remarks apply to colour light signalling. We do not believe that India offers an extensive field for methods of this kind, which are only suited to conditions of intensive traffic.

III.—Mechanical Department—Rolling Stock.

35. In dealing with the expenditure of the Mechanical Department we take locomotives, carriages and wagons separately as far as the figures permit.

36. *Maintenance and Supply of Locomotive Power.*—The following table shows the cost of maintaining and supplying locomotive power in the years 1929-30 and 1935-36 :—

Maintenance and Supply of Locomotive Power.

Rupees in Lakhs.

Railways.	As published in the Report (Vol. II).			Adjusted Figures.		
	1929-30.	1936-36.		1929-30.	1935-36.	
	Rs.	Rs.	Percentage of 1929-30.	Rs.	Rs.	Percentage of 1929-30.
A. B. ..	33	29	88	33	30	91
B. N. ..	1,81	11,64	91	1,80	1,64	91
B. B. & C. I.	2,32	1,86	80	2,40	1,95	81
E. B. ..	1,06	1,00	94	1,06	1,00	94
E. I. ..	3,33	2,78	83	3,35	2,83	84
G. I. P. ..	3,15	2,05	65	3,17	2,05	65
M. &. S. M.	1,76	1,45	82	1,70	1,45	85
N. W. ..	3,99	3,31	83	4,05	3,31	82
S. I. ..	1,26	1,10	87	1,26	1,10	87
Total	19,01	15,48	81	19,12	15,63	82

This abstract shows a considerable reduction in expenditure, in which all the railways have shared. The principal factor in bringing this about was reduction in mileage ; train miles were cut by 8 per cent. and engine miles by 10 per cent. on the broad gauge systems and by 8 per cent. and 13 per cent. respectively on the metre gauge lines.

The coal bill has also been reduced. In spite of increased use of low grade coal the consumption per train mile and per engine mile has been brought down. There were incidental savings in the lower price of coal and in the reduced freight charges with which the consuming railways were debited.

37. *Availability of Locomotives.*—The following table shows the percentage of locomotives under or awaiting repair in 1929-30 and 1935-36, with corresponding figures for the South African railways, and also

for the London and North Eastern and the London Midland and Scottish Railways at the end of the years 1930 and 1936.

Percentage of Locomotives under or awaiting Repair.

INDIAN RAILWAYS.	1929-30.	1935-36.
Broad Gauge.		
B. N.	21·3	20·1
B. B. & C. I.	18·3	18·4
E. B.	14·1	22·6
E. I.	15·7	14·8
G. I. P.	17·6	18·4
M. & S. M.	25·9	23·7
N. W.	23·5	16·1
S. I.	15·5	21·8
Metre Gauge.		
A. B.	19·8	14·3
B. B. & C. I.	15·8	14·7
E. B.	16·0	14·1
M. & S. M.	18·8	18·4
S. I.	19·7	20·3
SOUTH AFRICAN RAILWAYS	16·4	12·2
BRITISH RAILWAYS.		
	31st Dec. 1930.	31st Dec. 1936.
L. N. E.	17·3	13·1
L. M. S.	12·4	10·4

The percentage on the Indian railways is high and even where a reduction is recorded there is room for further improvement.

38. *User of Locomotives.*—The following table sets out the engine miles per day per engine :—

Engine Miles per Day per Engine.

Railways.	On Line. 1929-30.	On Line. 1935-36.		In Use. 1929-30.	In Use. 1935-36.	
	No.	No.	Percentage of 1929-30.	No.	No.	Percentage of 1929-30.
Broad Gauge.						
B. N.	75	75	100	106	112	106
B. B. & C. I.	68	59	87	110	101	92
E. B.	75	82	109	107	119	111
E. I.	71	67	94	97	103	106
G. I. P.	64	72	113	116	131	113
M. & S. M.	75	71	95	112	111	99
N. W.	71	63	89	102	106	104
S. I.	73	77	105	101	115	114
Metre Gauge.						
A. B.	72	64	89	100	90	90
B. B. & C. I.	66	58	88	97	99	102
E. B.	72	68	94	106	109	103
M. & S. M.	77	63	82	114	101	89
S. I.	73	69	95	98	105	107

These figures must be interpreted with caution. The "on line" columns show on the whole a declining tendency, which is to be regretted, but their meaning is obscured by the fact that they reflect the heavy percentage of locomotives under or awaiting repair. The "in use" columns show a fairly general improvement which suggests that the attention paid to locomotive user in recent years has produced good results.

39. *Stock of Locomotives.*—The total stock of locomotives is shown in the following talbe :—

Stock of Locomotives.

Railways.	1929-30. No.	1935-36. No.	Percentage of 1929-30.
Broad Gauge.			
B. N.	698	672	96
B. B. & C. I.	378	361	96
E. B.	327	302	92
E. I...	1,585	1,578	100
G. I. P.	1,101	752	68
M. & S. M.	297	302	102
N. W.	1,284	1,239	96
S. I.	148	154	104
	5,818	5,360	92
Metre Gauge.			
A. B.	188	204	109
B. B. & C. I.	507	463	91
E. B.	221	213	
M. & S. M.	354	357	101
S. I.	401	391	98
	1,671	1,628	97

We are of opinion that this stock is excessive. This is borne out, not only by the excessive number under or awaiting repair, but by the

following table showing the number available for use in relation to the maximum number in use on any one day :—

Locomotives. Number available for use and maximum number in use.

RAILWAYS.	Average number available for use. 1929-30.	Average number available for use. 1935-36.	Maximum number in Use on any one day. 1929-30.		Maximum number in Use on any one day. 1935-36.	
	1 No.	2 No.	3 No.	4 Percentage of Col. 1.	5 No.	6 Percentage of Col. 2.
Broad Gauge—						
B. N.	549	537	519	94·5	476	88·6
B. B. & C. I. ..	269	295	258	95·9	238	80·7
E. B.	266	230	252	94·7	228	99·1
E. I.	1,326	1,335	1,274	96·1	1,116	83·6
G. I. P. ..	908	615	717	79·0	464	75·4
M. & S. M. ..	222*	231	206*	92·8	202	87 4
N. W.	983	1,040	937	95·3	792	76·2
S. I.	125	120	125	100·0	112	93·3
Metre Gauge—						
A. B.	151	175	149	98·7	153	87·4
B. B. & C. I. ..	427	395	360	84·3	305	77·2
E. B.	177	182	169	95·5	143	78·6
M. & S. M. ..	288	291	267	92·7	243	83·5
S. I.	310*	312	308*	99·4	279	89·4

* Figures for year 1928-29.

With the exception of one railway the figures show an increase in the margin between the number available for use and the maximum number in use on any one day. This tends to confirm the inference that the stock of locomotives is unduly high.

40. *Maintenance of Carriages and Wagons.*—We cannot separate the figures for carriages and wagons respectively, and therefore give them together.

Maintenance of Carriages and Wagons (in terms of 4-wheelers).

(Rupees in Lakhs.)

RAILWAYS—	As published in the Report (Vol. II). 1929-30. Rs.	1935-36. Rs.	Percentage of 1929-30.	Adjusted Figures. 1929-30. Rs.	1935-36. Rs.	Percentage of 1929-30.
A. B.	9	12	133	9	12	133
B. N.	77	83	108	77	83	108
B. B. & C. I. ..	71	70	99	73	72	99
E. B.	41	45	110	41	45	110
E. I.	1,37	1,25	91	1,42	1,25	88
G. I. P.	93	82	88	96	82	85
M. & S. M. ..	43	39	91	41	39	95
N. W.	1,32	1,17	89	1,33	1,17	88
S. I.	23	23	100	23	23	100
Total ..	6,26	5,96	95	6,35	5,98	94

This abstract shows less economy than the other principal abstracts. Reduction in mileage has little if any effect on the maintenance of carriages and wagons. The figures suggest, however, that a further saving should have been achieved, and this is borne out by more detailed statistical examination. The statistics quoted relate to passenger carriages, and not to total coaching stock.

41. *Availability of Carriages.*—The following table shows the percentage of carriages under or awaiting repair.

Percentage of Carriages under or awaiting Repair (in terms of 4 wheelers).

	1929-30.	1935-36.
INDIAN RAILWAYS—		
Broad Gauge.—		
B. N.	11·0	14·7
B. B. & C. I.	10·1	18·1
E. B.	8·3	13·3
E. I.	9·7	10·1
G. I. P.	7·1	11·6
M. & S. M.	8·2	9·4
N. W.	12·7	11·7
S. I.	14·2	12·0
Metre Gauge.—		
A. B.	9·2	11·7
B. B. & C. I.	7·6	7·0
E. B.	8·8	9·4
M. & S. M.	9·4	9·1
S. I.	13·2	9·1
SOUTH AFRICAN RAILWAYS	11·82	6·7
BRITISH RAILWAYS	31st December 1930.	31st December 1936.
L. N. E.	8·2	5·9
L. M. S.	7·1	5·2

These percentages show in a number of cases a marked tendency to increase, and are for the most part unduly high compared with the standards reached elsewhere. There should be room for substantial improvement.

42. *Uuser of Carriages.*—The next table shows the vehicle **miles** of carriages per vehicle day.

Vehicle Miles per Vehicle Day (in terms of 4-wheelers).

RAILWAYS—	1929-30. No.	1935-36. No.	Percentage of 1929-30.
Broad Gauge.—			
B. N.	133	123	92
B. B. & C. I.	133	114	86
E. B.	136	131	96
E. I.	145	133	92
G. I. P.	157	168	107
M. & S. M.	123	106	86
N. W.	125	120	96
S. I.	122	124	102
Metre Gauge.—			
A. B.	102	86	84
B. B. & C. I.	99	92	93
E. B.	118	100	85
M. & S. M.	106	94	89
S. I.	107	102	95

The trend is almost uniformly downward. This result may be largely due to the fact that in bad times passenger train mileage can be reduced more rapidly than stock. In fact, however, stock has increased, as the next table indicates.

43. *Stock of Carriages.*—The Stock of passenger carriages is given in the following table :

Stock of Passenger Carriages (in terms of 4-wheelers).

RAILWAYS—	1929-30. No.	1935-36. No.	Percentage of 1929-30.
Broad Gauge—			
B. N.	1,439	1,576	110
B. B. & C. I.	1,001	1,083	108
E. B.	1,314	1,426	109
E. I.	4,894	4,767	97
G. I. P.	2,170	2,276	105
M. & S. M.	1,108	1,186	107
N. W.	4,706	4,629	98
S. I.	510	639	125
	17,142	17,582	103
Metre Gauge—			
A. B.	1,020	1,183	116
B. B. & C. I.	2,496	2,213	89
E. B.	1,172	1,333	114
M. & S. M.	1,393	1,433	103
S. I.	2,387	2,426	102
	8,468	8,588	101

The stock generally shows an upward tendency. This cannot be justified on traffic grounds, for passenger train mileage has been reduced and the number of carriages per passenger train should also have diminished owing to the decline in traffic.

44. *Availability of Wagons.*—The following table shows the percentage of average number of unserviceable wagons to total number of wagons on line daily :

Percentage of Average Number of Unserviceable Wagons to Total on Line Daily (in terms of 4-wheelers).

	1929-30.	1930-31.	1931-32.	1932-33.	1934-35.	1934-35.	1935-36.
INDIAN RAILWAYS—							
Broad Gauge—							
B. N. ..	8·6	8·2	12·4	20·5	20·3	9·5	10·9
B. B. & C. I.	2·7	2·8	3·6	4·0	3·1	5·1	4·7
E. B. ..	3·4	4·2	6·5	8·9	3·1	3·6	13·2
E. I. ..	6·6	3·9	8·7	14·5	13·3	14·2	13·7
G. I. P. ..	5·3	5·1	6·2	10·6	5·4	4·9	3·9
M. & S. M.	3·6	3·6	4·4	8·1	7·9	3·7	3·3
N. W. ..	6·8	9·0	6·9	12·0	7·4	8·4	8·1
S. I. ..	4·0	3·2	4·4	4·7	3·6	5·8	2·3
Metre Gauge—							
A. B. ..	2·4	3·7	5·0	5·4	2·5	2·1	2·5
B. B. & C. I.	2·5	2·7	1·5	2·0	1·7	2·2	2·4
E. B. ..	5·8	3·2	2·7	5·9	3·0	4·0	4·8
M. & S. M.	4·1	2·9	1·7	1·9	2·1	1·9	2·0
S. I. ..	13·2	6·4	4·1	4·1	4·3	3·9	6·0
SOUTH AFRICAN RAILWAYS	3·8	3·7	4·5	5·0	4·5	3·4	3·2
BRITISH RAILWAYS.	31st December 1930.	1931.	1932.	1933.	1934.	1935.	1936.
L. N. E. ..	3·4	3·1	5·4	3·8	4·0	4·0	3·0
L. M. S. ..	3·5	3·4	3·8	4·4	3·1	3·3	2·7

We have included in this table the intervening years in order to reveal the wide fluctuations in the figures and the surprisingly high level which some of them have reached. The value of the figures is, however, impaired since, as we understand, they include not only wagons taken out of traffic for repair in normal course but also so-called uneconomical wagons which are in a state of disrepair and, being surplus to immediate requirements, are stabled until such time as they may be needed for increased traffic.

In order to keep proper control over the repair of wagons it is desirable that accurate records should be kept of wagons taken out of service for repair with the intention of being returned to traffic after repair.

45. *User of Wagons.*—The following table shows wagon miles per wagon day :—

Wagon Miles per Wagon Day (in terms of 4-wheelers).

RAILWAYS.	1929-30. No.	1935-36. No.	Percentage of 1929-30.
Broad Gauge—			
B. N.	31·7	35·5	112
B. B. & C. I.	30·9	33·1	107
E. B.	25·7	22·9	89
E. I.	40·4	34·6	86
G. I. P.	51·4	41·8	81
M. & S. M.	43·8	46·4	106
N. W.	36·1	32·1	89
S. I.	32·2	33·1	103
Metre Gauge—			
A. B.	27·7	25·8	93
B. B. & C. I.	39·9	38·6	97
E. B.	25·5	25·3	99
M. & S. M.	41·3	27·9	68
S. I.	27·6	23·2	84

These results are unequal, but the general tendency is downward. The reduced mileage is undoubtedly in part a consequence of reduced demand. We believe, however, that there are other factors to be considered and we comment later on the scope for improving the turn-round of wagons (para. 64).

46. *Stock of Wagons.*—The following table shows the stock of wagons :—

Stock of Wagons (in terms of 4-wheelers).

RAILWAYS.	1929-30. No.	1935-36. No.	Percentage of 1929-30.
Broad Gauge—			
B. N.	23,985	22,575	94
B. B. & C. I.	10,154	9,209	91
E. B.	7,519	7,091	94
E. I.	45,694	48,384	106
G. I. P.	16,141	18,917	117
M. & S. M.	5,549	5,787	104
N. W.	27,086	28,318	105
S. I.	1,943	2,154	111
	138,071	142,435	103
Metre Gaguge—			
A. B.	5,055	5,410	107
B. B. & C. I.	10,991	9,895	90
E. B.	6,398	6,424	100
M. & S. M.	7,482	7,803	104
S. I.	7,624	7,155	94
	37,550	36,687	98

The stock of wagons seems to be somewhat excessive, having regard to the decline in traffic handled.

47. *Conclusions from Statistical Survey.*—We will summarise the broad conclusions which we draw from this survey of the rolling stock situation :—

(*a*) The percentage of locomotives and of carriages under or awaiting repair is excessive. A reduction in the percentage will enable the stock to be cut down and will also enable repairs to be carried out more economically.

(*b*) The percentage of wagons under or awaiting repair also calls for investigation. A normal figure of 5 per cent. should be aimed at, and something less than 3 per cent. should be obtained during peak periods of traffic. We note that the figures for some railways are consistently within these limits.

(*c*) Better use as expressed by miles per unit should be obtained from locomotives, carriages and wagons.

(*d*) The stock of locomotives is excessive and should be capable of reduction. Even in the event of a substantial increase in traffic we consider it unlikely that, for the present at any rate, there will be need to face any considerable programme for the purchase of additional locomotives. New types will admittedly be required from time to time ; even so, proposals for the purchase of additional locomotives should be closely examined and the Railway Board should in particular statisfy themselves that all practicable steps have been taken to make the best use of the existing stock. Surplus locomotives, if likely to be required for further use, should be taken out of traffic and tallowed down.

(*e*) The stock of carriages also is to high and should be more than equal to the requirements of an increased traffic. Proposals for the purchase of new stock should be very carefully scrutinised.

(*f*) In the case of wagons the stock seems to be high though not to so marked an extent as with locomotives and carriages. In the absence of any large increase in traffic no substantial purchase of stock should be necessary for some years.

(*g*) Locomotives, carriages and wagons which have become uneconomical should be scrapped, however far they may be from the end of their theoretical life. Units so scrapped need not be replaced as long as stock is excessive. Rolling stock scrapped and not replaced should be written off.

IV.—Mechanical Department—Workshops.

48. All the principal workshops were visited and as a result of these inspections we have the following comments to make :

49. *Workshop Organisation.* The workshops generally are of ample size and well equipped, but the methods of production are not uniformly good. It is important in connection with the heavy repair and periodical overhaul of rolling stock that proper planning and progressing arrangements should be adopted. The works are suitably equipped for this purpose. We find, however, that the out-turn of rolling stock undergoing heavy repair occupies too long. In the case of locomotives, for example, the out-turn is based on a 30-day schedule. Even this is excessive according to British standards, and a 20-day schedule should prove quite practicable. In actual fact a reasonable schedule was to be found at only one works, and in many cases the heavy repair of engines took 50 or 60 days to complete.

Time occupied in the havey repair of carriages and wagons could also be substantially cut down.

50. *Supervision.*—Supervision is in many cases defective, particularly where modern machine tool plant is in service. The introduction of modern plant into workshops calls for men of experience in modern machine tool practice to train the operators. Owing to the lack of experience in India such supervisory staff must at present be of European extraction. At the few works where European supervisors were still employed, the use made of the modern machines was noticeably better.

In general the workmen in an Indian workshop have not the tradition and training of the European operative, and they require careful supervision by experienced men who do not hesitate to take their coats off if necessary to show how work should be done. We were informed that a weakness in Indian supervisors up to the present has been their unwillingness to take action of this kind, presumably from fear of losing their status should they revert to any form of manual labour after they have received promotion to a supervisory position. We do not regard this state of affairs as other than temporary, provided that suitable action is taken.

We are convinced that the numbers of European supervisory staff in the mechanical workshops have been reduced below the limit of prudence, and this is reflected in the length of time taken to carry out repairs to locomotives, carriages and wagons. Experienced European supervisors are still required. The salaries offered and the prospect of continuous employment must, however, be such as to induce the best men to offer themselves. India cannot afford to take less than the best for these positions, since they will have the responsibility of imparting their skill and their traditions to the Indian supervisors of the future.

If, however, the railways, are to secure Indian supervisors of the right quality and in sufficient numbers proper steps must be taken to train them. At present only a few railways make adequate arrangements to train staff and so create a pool from which men of experience can be selected for the subordinate and superior grades in the workshops and mechanical section of the running departments.

We add at the end of this chapter a Note of the various descriptions of skilled work for which apprentices should be trained and the form of training which they should receive. We regard some such form of selection and training as the only practicable way of providing the type

of Indian supervisor required if the railway workshops are to reach the standard of efficiency that is possible with the equipment available.

51. *Reduction of Staff.*—If the workshops are to be run economically, the numbers of the staff must be adjusted from time to time to the volume of the work. This will involve reductions of staff at slack times. There appears, however, to be some reluctance on the part of Chief Mechanical Engineers to reduce the staff for fear of political and other reactions. This in our view is unfortunate and incompatible with efficiency. Reductions, when required, should be made judiciously and in such a way as to cause the least possible sense of grievance. The occasion should not be regarded as an opportunity for getting rid of inefficient men. Inefficiency should be dealt with, by discharge or otherwise, as a separate matter and at other times.

52. *Amalgamation of Shops : Concentration of Work.*—We have considered the possibility of amalgamating the shops belonging to the various administrations and the concentration of particular work at individual shops.

So far as repair and overhaul work is concerned, we do not think it is desirable to take this out of the hands of individual administrations. The saving would be inconsiderable and it would be difficult to give general satisfaction in carrying out such amalgamations.

In the matter of construction the case is different. The building of carriages is the only form of construction carried out in the Indian railway shops and we are of opinion that this work could be concentrated with advantage. The manufacture of carriage underframes is already centralised at the Tatanagar Works. All other work in connection with the building of new carriage stock should in our opinion be concentrated in three works—two for broad gauge stock and one for metre gauge and narrow gauge stock. Such a concentration would release large quantities of timber and sawmill plant. Probably the most suitable places for this concentration would be the Matunga Works of the Great Indian Peninsula Railway and the Lilloah Works of the East Indian Railway for broad gauge stock, and the Kanchrapara Works of the Eastern Bengal Railway for metre gauge stock. The matter is, however, one for more detailed consideration and we do not think it desirable to make a definite recommendation as to locality.

Most of the carriage and wagon works belonging to individual administrations are equipped with drop stamps. Greater efficiency could be obtained if these stamps were concentrated at one place for the production in mass of standard parts for all the state-managed railways. We recommend the East Indian Railway Works at Tatanagar as a centre for this purpose.

The efficiency of the organisation of these works is remarkable and we are of opinion that better use should be made of them in other directions by concentrating certain work. They could be made the centre for the manufacture of all items that are required in quantity for carriage and wagon work for all the state-managed railways. They might also be called upon to manufacture an agreed percentage of bolts, nuts and rivets for all the state-managed railways so as to avoid the risk of any work being held up for lack of these items.

V.—Mechanical Department—Running Maintenance.

53. *Limits of Running Shed Repairs.*—On a number of the Indian railways the supervision of the work done in the running shed rests with the Transportation Department and does not come directly under the Chief Mechanical Engineer. We doubt whether this organisation makes for efficiency, for it leads to the carrying out in the running sheds of repairs which should properly be done in the workshops. This was very much in evidence at certain of the running sheds which were visited by members of the Committee. In some of these plant has been installed which can be justified only on the assumption that it is required for manufacturing odd lots of stock items—work which should properly be done in the main workshops. On the other hand, certain necessary equipment for dealing with running repairs was lacking.

54. *Running Repair of Locomotives.*—It is necessary that the Traffic Department should be provided with engines capable of working for a week without further attention. To enable this to be done the work of maintenance should be scientifically allocated amongst the running sheds and one or more experienced mechanics should be employed at each shed to pass out engines fit for work. Until this has been done, the pooling of locomotives is impracticable and the opportunity for economy which pooling affords is beyond reach.

Every effort should be made to obtain as much mileage as possible between shed attention, but this cannot be achieved until the hot box problem, to which we refer in the following paragraph, has been solved.

55. *Hot Boxes.*—The running of locomotives is very seriously affected by the problem of hot boxes. At Lahore shed in the winter season there were, we were told, on an average two cases of hot boxes daily, and in the summer months this number rose to four or five. We were also informed that in six months at Erode 300 engines had had to be lifted and examined for the same defect. These cases seem to be typical of the general condition of affairs.

The causes of this shortcoming should be fully analysed and steps taken to eliminate them ; the grade of oil supplied should also receive special consideration. As an immediate step we recommend that at every large works and shed it should be the specific duty of one man to examine and make a report on each case so as to ensure that the repairs done are up to standard and that the assembly is properly carried out. The matter is of great importance from the point of view of economy since a reduction in the number of cases of hot boxes would automatically release more engines for service.

56. *Carriage and Wagon Examination.*—There are too many examining points for both passenger and freight trains. It should be sufficient if rakes working on branch lines were examined once a week by a visiting inspector, and at similar intervals by men for brake blocking. Examining points for main line trains, both passenger and freight, should be more widely spaced. This should lead not only to improved user of rolling stock but also to reduction in the number of staff employed.

57. *Damage to wagon Buffers.*—The damage to buffers is so great that practically every sick line has a special apparatus for repairing

them and it is also a big item at the various wagon shops. The design of the buffer should be examined and the possibility of strengthening the headstocks of many of the existing wagons, when under repair, should be investigated.. Indeed we think it would be desirable that the Standards Organisation of the Railway Board should examine the matter and prescribe standard methods of repair, with the definite intention of strengthening these old type wagons. It should be possible so to modify the buffing gear that a great deal of the damage now experienced would be avoided.

VI.—Traffic Department.

58. *Expenditure.*—The following table shows expenses of the Traffic Department :—

Traffic Department Expenses.

(Rupees in Lakhs.)

Railways.	As published in the Report (Vol. II).			Adjusted Figures.		
	1929-30. Rs.	1935-36. Rs.	Percentage of 1929-30.	1929-30. Rs.	1935-36. Rs.	Percentage of 1929-30.
A. B.	28	24	86	28	25	89
B. N.	1,19	1,07	90	1,19	1,07	90
B. B. & C. I. ..	1,30	1,13	87	1,30	1,15	88
E. B.	93	83	89	93	83	89
E. I.	2,38	2,31	97	2,51	2,30	92
G. I. P.	1,55	1,33	86	1,55	1,33	86
M. & S. M. ..	59	71	120	65	70	108
N. W.	2,00	1,86	93	2,00	1,86	93
S. I.	53	50	94	53	50	94
Total ..	10,75	9,98	93	10,94	9,99	91

Expenditure under this abstract has benefited from the reduction in train and engine mileage already mentioned. Otherwise the principal economies were realised by retrenchment of staff and reduced consumption of clothing and stores.

Amongst other measures of economy adopted were the closing of stations, the reduction in status of stations where traffic had decreased, the conversion of crossing stations to flag stations and the extension of the contract system to the handling of parcels and the cleaning of engines. The opportunity was also taken, as contracts expired, of securing reduced rates for handling goods at goods stations.

We are of opinion that the transportation on Indian railways is conducted with efficiency, and have already alluded to the principal results, as measured by statistical data, in the preceding chapter. There are, however, certain directions in which we think greater efficiency and economy could be attained.

59. *Acceleration of Passenger Trains.*—The speed of passenger trains in India is much criticised and these criticisms relate to all classes of passenger trains. We shall revert to this subject later when dealing with the question of road-rail competition. At present we are considering it only from the point of view of economy.

The average speed of long distance express trains is low, having regard to the wide gauge and the relatively easy gradients. We do not recommend that any special steps, involving additional expenditure, be undertaken in order to raise the standard since we doubt whether they would show any corresponding benefit in net earnings. We consider, however, that some improvement could be effected within the present limits of permissible speed and load. Some sections admit of faster running and full advantage should be taken of this. Stops at stations, watering points and engine changing depots can be further reduced both in number and in time.

There is a stronger operating case for the acceleration of medium distance and branch line trains. In such services a higher speed will often give a better turn-round of carriages and locomotives. The administrations are conscious of the commercial advantage of accelerating their passenger train services and are moving in the direction of overhauling their timetables. We agree as to the commercial advantage to be obtained, but in our opinion there is also an operating advantage of considerable value ; and we recommend that the whole process of accelerating the passenger timetable be taken in hand on more thorough lines than hitherto, with the object of securing the best possible use of rolling stock as well as providing a better service to the public.

60. *Acceleration of Goods Trains.*—The distances between the chief industrial centres and the ports, and between the producing and the consuming areas, make a quick goods service not only desirable but essential. Moreover, investigation in other countries has shown that accelerated rail transit within certain limits reduces operating costs. At present goods trains in India appear to be scheduled from point to point at speeds varying from 16 to 25 miles an hour. On the broad gauge all trains are fitted with continuous brake and there should be no difficulty in improving this speed without load reduction. This can be determined by tests and the maximum permissible speed should be raised on sections of line favourable to fast running, to levels more nearly approximating passenger train speed.

61. *Reduction of Loads.*—Although we think that there is still room for improvement in the speed of goods trains without reducing the load, the possibility of acceleration by reducing loads should also be investigated. It has been found in other countries that, on sections of the line where goods trains are fully loaded and the train service is intensive the increase in train mileage involved by the running of extra trains of lighter load has been more than set off by the quicker turnround of the rolling stock and the improved service provided. Above all, we would emphasise the need of a quicker service to meet the growing road competition. Railways can no longer afford to detain either wagon or trains for full load, and we deal more fully with this point in paragraphs 181 and 182 where we treat of the counter measures necessary to combat road competition.

62. *Transit of Traffic.*—Over long distances with the exception of traffic transported throughout by express goods trains, 100 miles per day is regarded in India as reasonable transit. We are of opinion that this is far too low an average ; distances of from 300 to 360 miles per day are commonly attained on the 3 ft. 6 in. gauge railways in South Africa over distances comparable with distances in India. The Indian railways should maintain in the case of through long distance traffic an over-all speed of not less than 10 miles per hour or 240 miles per day. For perishable and urgent traffic an average of 360 miles per day is achieved in some instances and might well be made more general. The transit given by express goods trains is an indication of what can be done by scheduled through working.

63. *Improved Connections.*—The urgency of giving a better transit to through traffic is not sufficiently recognised in India. Too much time is lost in passing traffic forward from division to division and from one railway system to another. Delays to through traffic of from 8 to 16 hours at yards and exchange points are not regarded as abnormal. The whole freight timetable needs to be tightened up with the object of securing that through traffic is passed forward with the minimum of delay. Much of the traffic lends itself to long transit in unbroken train loads. The fullest advantage should be taken of this. Through trains should be scheduled with stops solely for engine changing at depots and for marshalling ; otherwise, except for crossing purposes, the length of the run without stopping should be limited only by the need for wagon examination.

We learnt that on some lines it is not the practice to include in the working timetables any detailed timings for goods trains, and that trains are passed from station to station by the operators in the district or divisional control offices as opportunity offers. We consider it to be the better practice to schedule all regular trains in the working timetable, showing crossing places ; where it is necessary to provide for provisional trains, these also should be scheduled from station to station and marked "conditional". Arrangements for connecting trains can be better regulated if normal services are scheduled throughout.

64. *Turn-round of Wagons.*—We have been struck in particular with the very slow turn-round of freight wagons. The statistics issued by the Railway Board show that the average wagon miles per wagon day during the year 1935-36 were 35.1 and 28.1 for broad and metre gauge stock respectively. We were informed that for an average lead of 204 miles the turn-round of broad gauge wagons during busy seasons in 1935 and 1936 averaged between ten and eleven days. Even allowing for the fact that the stock available during these years was probably more than required, we think this turn-round is excessive.

In our view the remedy for the defect lies—

(*a*) in increasing the speed of goods trains ; and

(*b*) in improving the connections at engine changing stations and particularly at transfer points between divisions and administrations.

It may be mentioned that in South Africa with an average lead of 224 miles a turn-round of wagons in an average time of five days has

been made possible by concentrated application to prompt release of wagons at receiving centres, reduction in time at yards and engine changing depots, scheduling connecting through trains for the longest possible distances and eliminating avoidable delays on the journey.

It is difficult to estimate the value in wagons that accelerated transit affords, but an improvement of two days in the average turn-round of broad gauge wagons on the Indian railways would make it possible to handle 20 per cent. more traffic with the existing stock, or, alternatively, to deal with the present volume of traffic with 25,000 fewer wagons.

65. *Station Staff.*—We gathered that, while much had been done to reduce staff at stations, the application of the Hours of Work regulations has, to some extent, counteracted savings in this direction, especially at wayside stations. These regulations must be strictly carried out, but we gained the impression that on some railways they had been too rigidly interpreted, and that the numbers of the staff at wayside stations had been increased beyond the necessities of the case.

We doubt whether the possibilities of economy at medium sized and larger stations have been fully explored. We recommend that an endeavour should be made to measure the work done at medium and larger stations on a unit basis and that the comparisons thus obtained should be used as a basis for bringing the less efficient stations up to the level of the most efficient. It will be a matter of some intricacy to devise a unit basis, but we see no reason why the endeavour should not be successful. We return to this subject in the next chapter under the heading of "Economy Research Committees" (para. 68).

VII.—Other Expenditure.

66. *General Departments.*—There is no purpose in making a detailed investigation of the abstract covering Miscellaneous Expenses; this consists for the most part of items such as allocations to provident funds, and the like, which are not within the control of the administrations.

We should, however, like to make some comments on the abstract relating to General Departments.

In the following table a comparison is given of the expenses of General Departments in 1929-30 and 1935-36:—

General Departments.

(Rupees in Lakhs.)

—	1929-30.	1935-36.	Percentage of 1929-30.
Railways—	Rs.	Rs.	
A. B.	12	12	100
B. N.	49	49	100
B. B. & C. I.	56	53	95
E. B.	36	34	94
E. I.	92	80	87
G. I. P.	64	61	95
M. & S. M.	39	39	100
N. W.	91	86	95
S. I.	32	31	97
	4,71	4,45	94

The principal items which go to make up this abstract are head office staff and accounts staff. We deal later (para. 78) with the reductions which have been effected in head office staff.

67. *Accounts Staff*.—We have examined in some detail the reductions which have been effected in the accounts staff. The position is to some extent obscured by the fact that the accounts departments have taken over a good deal of statistical work from Agents as well as certain accountancy work which was previously done departmentally. If allowance is made for this additional work there has been a real reduction of something like 10 per cent. in the number of accounts staff of the state-managed railways, including the office of the Controller of Railway Accounts at Delhi.

Nevertheless, it would appear that the accounts departments, taking the state-owned railways as a whole, are unduly expensive. The accounts expenditure on the state-managed railways is equivalent to 1.47 per cent. of gross receipts and that of the company-managed railways to 1.20 per cent. of gross receipts. The corresponding figure for the two largest British railway companies combined is 0.95 per cent. This comparison must be used with caution for there is naturally a considerable difference in the work done ; but it can be said that the figures disclose a case for a careful scrutiny of expenditure on the accounts departments of the Indian railways.

There should be a special overhaul of the work done in each office and comparisons should be made between the efficiency of the different offices on a unit basis. Until some reasonably scientific basis of measuring the work done is devised there are likely to be wide diversities between the efficiency of the work at different centres.

Considerable economies have already been effected by means of mechanisation. The possibility of further mechanisation should be specially investigated. We suggest that the services of an expert outside firm should be called in to examine the situation and report. The report might open up further opportunities of economy, both in connection with accounts proper and with the compilation of statistics.

We have been struck with the extent to which the various state-managed administrations are still treated as if they were separate concerns. It is no doubt desirable that each administration should be properly debited with its own working expenses in order that the management may keep a close watch upon the outgoings and the economy with which the undertaking is conducted. There is, however, no similar advantage in a precise calculation of the revenue earned. A close approximation is sufficient for all purposes of supervision and control. We believe that an examination of the exact entries at present made in the Clearing Accounts Office would show that average figures could in many cases be adopted which, subject to a periodical check, would be sufficiently near to the exact figures for all practical purposes and would save a multitude of separate calculations.

Rough and ready divisions of this kind have for many years been accepted in Great Britain as affecting a number of inter-railway settlements. It is the general view that such settlements have represented reasonable equity to all parties, together with considerable economy as against a more exact apportionment. Where, as in India, the different

state-managed administrations are being conducted in a common financial interest, the argument in favour of such rough justice is even stronger than in Great Britain.

NOTE.

(See paragraph 50.)

Training of staff for (a) Workshop Supervision; and (b) Gazetted posts in the Mechanical Engineering Department.

(*a*) There should be a constant flow of trade apprentices through each of the main workshops to the following trades in the metal industry :—

1. Fitters, turners and erectors,
2. Boilermakers and wagon builders,
3. Coppersmiths,
4. Blacksmiths,
5. Iron and brass foundry moulders,
6. Machinists,
7. Welders,

and in the wood industry :—

1. Carriage builders,
2. Cabinet makers and finishers,
3. Carpenters,
4. General wood machinists,
5. Painters and letterers.

Some of these trades are not peculiar to railway works and it may be possible to obtain experienced craftsmen from outside industry. In the others it is suggested that youths between 17 and 18 years of age who can speak and read a little English, and who show promise of good physique, should be selected and receive a practical workshop training at one or other of the trades for a period of five years.

After this training they should be employed, if they have qualified, as young journeymen. After they have worked for a further period of 5 years as journeymen, during which time they should receive every six months or thereabouts small increments of pay on merit, they should be suitable for selection as competent chargemen and assistant foremen.

(*b*) To obtain men of Asiatic domicile for the gazetted posts of the mechanical engineering department, youths of about 18 years of age should be selected after matriculation from an Indian school. The training already available at the Jamalpur Works of the East Indian Railway and the technical school associated with them is, we consider, satisfactory and should be enlarged to meet the needs of all the railways in the future. We think it is particularly valuable in combining the practical with the theoretical work ; for it cannot be too strongly emphasised that mere academic qualifications are not sufficient for officers in the mechanical engineering department.

We consider that for the present it is desirable that the Principal of the Jamalpur School should continue to be a European of experience.

We recommend that, as at present, a selected number of special apprentices who have passed through the Jamalpur course should be sent to England each year for further training for two or more years. In this way a supply of well trained young men of Asiatic domicile would be available from which selections could be made to fill vacancies as junior officers in the mechanical department.

The direct recruitment of properly qualified young men of European domicile will presumably be continued to fill 25 per cent. of the appointments, and this we regard as essential.

CHAPTER IV.

Further Possible Economies.

68. *Economy Research Committees.*—As a result of the reports of the Committees presided over by Mr. Pope in 1932-33 and 1933-34, special organisations were created on each of the important railways for examining every phase of railway activity in the search for further economy. A senior officer was placed on special duty to organise the "drive" necessary to carry through these investigations and the figures below, supplied by the Railway Board, show that the work has been abundantly justified.

Railways.	1933-34.		1934-35.		1935-36.	
	Cost of job analysis organisation.	Savings effected.	Cost of job analysis organisation.	Savings effected.	Cost of job analysis organisation.	Savings effected.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
East Indian	77,691	7,01,128	92,884	18,14,544	1,13,541	5,82,459
G. I. P.	56,680	4,15,000	64,000	2,04,246	53,574	2,04,859
North-Western ..	32,000	12,66,749	46,006	12,37,376	56,729	7,22,202
Eastern Bengal ..	63,000	2,14,864	65,995	1,29,508	26,134	41,600
B. B. & C. C. I. ..	58,789	3,52,862	35,300	11,41,596	3,643	2,25,682
M. & S. M.	8,750	45,220	17,632	1,14,000	4,920	2,56,000
South Indian	19,580	27,400	2,180	25,000	221	8,463
Assam Bengal	12,825	1,31,755	8,208	12,659	1,490	Figures not available.
Bengal Nagpur ..	..	..	..	..	17,575	13,68,493
Total ..	3,29,315	31,54,978	3,32,205	46,78,929	2,77,827	34,09,758

The cost of the special organisation has been insignificant in comparison with the savings effected, even if no allowance is made for the fact that many of the savings are of a recurrent character.

This campaign should be continued. There appear to us to be numerous lines of enquiry which should be followed up. Some affect the railways as a whole ; for instance, the possibility of reducing the elaboration of inter-railway settlements. Others affect different departments in one railway, and others again, although affecting one department only, need a special staff to be set aside for the enquiry.

We recommend that each of the principal administrations should maintain the special economy research organisation set up under the auspices of the Pope Enquiry. In the case of some of the smaller administrations this may be thought to involve excessive expense ; if so, they should be called upon to set up a special organisation of a less expensive kind, but still directed to examining the possibility of affecting further economies. It would also be desirable to have a central economy research committee, consisting of representatives from each of the principal administrations, whose duty it would be to speed up the progress made by the various individual organisations on certain approved lines of general enquiry.

In many cases the impetus given by the original Pope Enquiry is flagging. In other cases it is represented that the cause of economy is safe in the hands of district and departmental officers. We are, however, strongly of opinion that it is important to maintain the vigour of the driving power at the centre, whether in the individual administrations or in the state-owned system as a whole. The services of district and departmental officers are invaluable in securing day to day economy and the efficient application of recognised improvements. It is, however, impossible for them to undertake any special investigations or examine ideas which are being worked out on other railways or in other parts of the world. On the other hand, it would be the duty of the economy research organisations here discussed to keep in touch with all such developments, and to suggest their application on any system or section where they think such ideas are most likely to give good results. We are convinced that there is a large field of work open for further enquiries and we give below some items which we think will especially repay detailed investigation :—

(*a*) The working out of unit bases for increasing work done by permanent way maintenance staff and station staff.

(*b*) The examination of all clerical work, including that in the accounts office, and the elimination of all unnecessary processes, especially those connected with the collection and supply of information to head offices.

(*c*) The more intensive use of rolling stock.

(*d*) A review of the whole system of wagon interchange with the special objects of :—

(*i*) simplifying procedure at interchange junctions ;

(*ii*) prolonging the periods between shop repairs ;

(*iii*) curtailing expenditure on running repairs.

(*e*) Examination of printing costs to ascertain whether expenditure can be reduced :—

(*i*) on the technical side ;

(*ii*) in the number of forms used.

We recommend that the present practice of preparing an annual report on the work of the research committees should be continued. This should include an estimate of the economies realised, whether recurrent or non-recurrent, as compared with the annual cost of the organisation itself. As we have pointed out the record hitherto maintained has shown a substantial balance on the credit side of the account. We believe that if the organisation receives fresh direction and fresh initiative it will continue to yield substantial benefits to the railway finances.

69. *Closing of Branch Lines.*—We find that insufficient attention has been given to the question of closing unremunerative branches, particularly in cases where there may be reason to think that the branch has been rendered unremunerative by the development of motor transport.

We believe that the final decision to close a branch line, involving the withdrawal of public services, rests with the Railway Board. A decision to continue the operation of a branch line which is losing money should in our opinion equally rest with the Board. Such a decision involves putting a burden on the railways as a whole for the benefit of a particular locality, and should not be left to the individual administration.

The position of branch lines, particularly those affected by motor transport, should be reviewed periodically with the object of seeing :—

(*a*) whether every effort has been made to combat road competition ; (we deal with this later in Chapter XI) ;

(*b*) whether the net revenue earned by the branch (with allowance for contributory revenue) exceeds the saving which would be made by closing the branch ;

(*c*) whether there is hope of improved financial results in the future.

If, as a result of this enquiry, it is clear that the continuance of the branch is costing, and is likely to cost, more than it brings in, the administration concerned should report the case to the Railway Board with its recommendation as to the steps to be taken. The Board could then decide whether, in the interests of the community generally, the loss involved should, or should not, be allowed to continue.

The same conditions apply where the problem involved is the discontinuance of a passenger or goods service without the actual closing of the branch itself.

Before any final step is taken, we assume that the Board will approach the Provincial Government concerned and ascertain whether they would be prepared to make any contribution towards the continuance of the branch or service.

On the question generally, we see no justification for the maintenance of an unremunerative branch line service at the expense of the railways as a whole or of the general taxpayer, and we consider that, apart from exceptional cases, such services should be withdrawn. This applies particularly to narrow gauge lines which, with their speed limitations,

are quite unequal to facing bus competition. In the general interest the sooner the situation is recognised the better.

70. *Central Publicity Bureau.*—We have examined the working of the Cntral Publicity Bureau and we are of opinion that it is efficiently conducted. The booklets and posters produced are of high quality and the "Indian State Railways Magazine" is a creditable specimen of tourist literature.

We are, however, doubtful whether the energies of the Bureau are at present turned in the most profitable direction.

The Bureau maintains two offices outside India, one in London and one in New York. The latter is wholly engaged in the development of tourist travel from America to India. We think it is improbable that its activities will secure a profit to the railways commensurate with its cost. Such tourist travel is almost entirely first class, and first class travel in existing conditions gives at best a very narrow margin of profit. Moreover, the volume of American travel can never be considerable.

On the other hand it appears to us that there are considerable possibilities in the development of tourist travel in India itself. The pilgrimage habit is susceptible of encouragement, and the population to which this encouragement can be addressed has enormously increased since the advent of the motor bus has brought remote villages into comparatively easy contact with the railways. We believe that this offers a rich seam of traffic which railways could profitably work, if money and thought were devoted to its development.

We have given the matter careful consideration and we recommend that the New York office of the Central Publicity Bureau should be closed as soon as arrangements can be made to do so. The money thus saved could be diverted to the development of third class travel in India.

We do not recommend similar action in regard to the London Office. The case for this office stands on an altogether firmer footing. Its activities are wider and are likely to be more fruitful. It possesses definite advantages as a centre for the circulation of information and the distribution of literature. Apart from this it has a general value which cannot be precisely assessed. The Indian railways, as a national organisation, have business relations that extend far outside the limits of India itself, and call for the maintenance of representation in London as the chief business centre of Europe. The London representative is in a position to establish useful business connections with other European countries, and has in fact been successful in doing so.

71. *First and Second Class Travel.*—We have been impressed with the waste of accommodation involved in maintaining four classes of travel on Indian trains. We cannot help feeling that the whole question of upper class accommodation should be reviewed.

The volume of first and second class traffic is small and has been diminishing rapidly : and this tendency, so far as we can learn, is likely to continue. We reproduce below figures showing the decrease in the

number of passengers and earnings in both classes combined since 1926-27, side by side with the accommodation in existence :—

I AND II CLASS PASSENGERS.

Statement of number of seats, number of passengers carried and earnings from passengers carried on Class I Railways for selected years.

Year.	Number of seats on 31st March.	Percentage of 1926-27 figure.	Number of Passengers carried (in thousands).	Percentage of 1926-27 figure.	Earnings from Passengers carried (in thousands of rupees).	Percentage of 1926-27 figure.
1926-27	90,982	100	11,500	100	2,97,27	100
1929-30	88,501	97	10,240	89	2,79,35	94
1932-33	98,818	109	5,994	52	2,19,51	74
1935-36	96,281	106	5,416	47	2,17,51	73

The number of passengers and the earnings in 1935-36 show reductions of 53 per cent. and 27 per cent. respectively on the corresponding figures for 1926-27. On the other hand the seating accommodation has increased by 6 per cent. These figures indicate that there is room for a reduction of upper class accommodation, and we recommend that this potential economy should be fully investigated.

We also recommend that the possibility of combining first and second class accommodation, and of establishing a single upper class on all trains, should receive the special attention of the Railway Board.

72. *Abolition of First Class Travel on Branch Lines.*—The figures already quoted indicate that the reduction of upper class accommodation could usefully be pursued in a variety of directions.

We were informed that on one of the smaller railways first class accommodation had been abolished, and as a result it had been possible to convert first class into third class carriages and to increase the seating capacity for lower class passengers in composite carriages. Similar action could well be taken on many branch lines. Second class accommodation would, we believe, meet all the reasonable requirements of upper class travel on most branch lines, whilst the abolition of first class accommodation would enable the railways to provide increased room for lower class travellers, or alternatively, by reducing dead-weight, to provide a speedier service. The experience gained on branch lines might be taken as an indication of the possibility of extending the reform to the less important trains on main lines.

73. *Upper Class Coupé Compartments.*—We have been informed that plans are in hand to provide an increasing number of two-berth coupé compartments for first class travellers in place of the existing four-berth compartments. This may involve an increase of first cost, and of dead-weight per passenger berth, but if the increase is not substantial the change may be justified as a definite improvement of existing amenities, particularly

if the development could be used as a stage leading towards the establishment of a single upper class. Having regard to the number of cases which we understand occur at the present time where four-berth compartments are occupied by one or two passengers only, we think it probable that a carriage constructed throughout on the coupé principle would be more convenient, and on the average would be more fully occupied than a composite coach constructed on the present design.

74. *Capital Expenditure : Past and Future.*—Under the head of economy we would wish to add one word as to capital expenditure. In our tour we have formed the impression that capital expenditure has been incurred on too lavish a scale in the past. We recognise that circumstances in the post-war decade encouraged optimistic expectations which have not so far been realised. We recognise also that a good deal of the capital expenditure incurred was incurred at the instance of and under pressure from Government Authorities. There remains, however, a considerable residue of expenditure which in our opinion must be attributed to a deficient sense of proportion on the part of the railways themselves.

We have had it impressed upon us that India is a poor country. There may be an abundance of capital available for those who know how to reach it ; but it is incontestable that the average inhabitant of India must content himself with a standard of life very little above subsistence level and that the resources of additional taxation are almost non-existent. It is true also that any deficiency on railway finances must be made good out of these almost non-existent resources.

Apart from this the railways are for the most part sparsely occupied and the traffic will only bear the lowest possible level of fares and rates. Similar conditions hardly exist in any other part of the world.

The railways are therefore bound to keep this situation in mind and to cut their coat accordingly. They have not got the vast resources of Great Britain or the United States to fall back upon ; nor can they look for the rapid and abounding growth of traffic which speedily justifies, or swamps, excessive capital expenditure in the newer countries of the world. Every capital scheme has to be justified, and should be limited, by reference to the narrow resources of the country, not by the practice of richer or more rapidly progressing countries.

We cannot help feeling that, in the past fifteen years, stations, workshops and marshalling yards have often been built to be the last word in railway technique rather than on a careful calculation of probable requirements, and that prestige has perhaps counted for more than prudence. It is the worst feature of such overgrown schemes that they continue to burden the railways with excessive costs of maintenance and operation quite apart from the excessive interest charge involved. We have felt that there is perhaps something of the same lack of proportion in the importance attached to the improvement of the amenities of first class accommodation in a country where about 92 per cent. of the passenger revenues come from the lower class traveller ; but we recognise that this is a prickly subject, and that it behoves cold-weather visitors to speak of it with proper humility.

We speak elsewhere of the need of particular caution in the construction of new branch lines or extensions. At a time when road

competition is largely an unknown force, and is almost entirely unregulated, it would need a very strong case and an assured outlook to warrant a railway in sinking further capital in new mileage.

We believe that all capital expenditure above a lakh of rupees must be submitted to the Railway Board for approval, and that the financial justification for the scheme must be submitted at the same time. We have not been able to satisfy ourselves whether this practice is strictly carried out, but it is important that the justification should be worked out in detail and that it should be carefully scrutinised by the Board from the business point of view. We suggest that the financial items of the justification should be certified by the accountant of the administration and that no scheme, whose justification rests upon the savings to be effected, should be passed unless the annual saving is equal to at least 10 per cent. on the capital cost involved. It is important, too, that the saving eventually realised after the new capital has fructified should be carefully compared with the estimate.

75. *Reduction of Wages.*—We have necessarily given consideration to the possibility of reducing expenses by an all-round reduction of salaries and wages. The question whether present-day wages on the Indian railways are too high in comparison with those in other industries, or in comparison with the level of pre-war wages in the railway industry, is one of great complexity and, as far as we have been able to judge, information definitely bearing on these comparisons is almost entirely lacking. That aspect of the matter, however, is not the aspect which concerns us. It would demand a separate enquiry at least as detailed as, and more exacting than, that which we have been able to conduct into the whole field of railway management. Nor does it appear to us to be relevant to the present problem.

The question we have had to consider is much more one of general policy. An all-round cut in wages and salaries is an emergency measure of great gravity, at whatever period it may be proposed. Do existing conditions call for such an emergency measure ?

We are advised, and statistical information makes it evident, that there was a general and marked increase in wages after the War. Further increases to the lower grade staff were conceded in 1929-30 when the country as a whole was enjoying a period of prosperity. When prosperity was succeeded by depression an all-round cut of 10 per cent. was imposed on all pay from December 1931. This cut was partially restored in April 1933, and fully restored in April 1935, in recognition, as we understand, of the general improvement in the economic condition of the country.

We regard it as being outside our province to consider whether the restoration of this cut in wages and salaries was or was not commercially justifiable at the time it was sanctioned. The essential fact bearing upon present-day conditions is that it was restored with due deliberation at a time when the financial position of the railways was definitely less favourable than it is to-day ; and the question which we have felt ourselves called upon to answer as practical railway men is this—whether against such a background the emergency is such that we should be justified in advising a drastic reversal of policy, and the reimposition of an all-round reduction.

We have come to the conclusion, with a full sense of responsibility, that such action would not be prudent or justifiable at the present juncture.

76. *Application of New Scales of Pay.*—We have been informed that new and reduced scales of salary have been adopted for certain grades of the gazetted and subordinate staff. These are being applied as new appointments are made. We comment elsewhere on their adequacy for certain purposes. It has, however, been urged upon us that these scales should be applied with immediate effect to the existing staff, or at least that they should be applied upon promotion from one class to another.

We are satisfied that it would be inequitable and undesirable to adopt either of these courses, which would fall with very unequal effect upon different members of the staff. To do so would give rise to grievances out of all proportion to the saving to be effected, irrespective of any question of contractual obligations that might be involved.

77. *Salaries of Gazetted Officers.*—It has been urged upon us that the salaries of gazetted officers are on too high a level and should be drastically reduced, quite apart from any action in regard to the lower salaried or wages grades. We have been unable to find any justification for this contention. Where comparison can be made with the salaries paid for similar posts in Great Britain we do not consider that the salaries of gazetted officers on the Indian railways are fairly open to criticism.

CHAPTER V.

Present Administration : Some Criticisms and Suggestions.

78. *Excessive Reduction of Administrative Posts.*—While we are satisfied that the economy campaign has been conducted with credit to those concerned, we feel that in certain directions it has been carried so far as to impair the efficiency of the organisation. This in our opinion is particularly the case with the higher administrative positions.

The suggestion was put forward in various quarters that retrenchment had been made generally at the expense of the lower ranks of the service, and that the axe had not been applied sufficiently to the higher staff, the result being a top-heavy administration. We can find little in the actual establishment figures to justify this criticism : the tables below which show the reductions made in respect of gazetted and non-gazetted staff—(*a*) in the Railway Board's office and (*b*) on all state-owned railways—do not bear it out.

Number and Cost of Staff for the years 1929-30 and 1933-34.

(*a*) *Railway Board's office.*

Years.	Number of Staff on 31st March.				Cost in thousands of Rupees.			
	Gazetted.		Non-gazetted.		Gazetted.		Non-Gazetted.	
		%		%		%		%
1929-30 ..	26	100	234	100	7,97	100	3,97	100
1933-34 ..	21	81	205	88	5,72*	72	3,66*	92

* Includes a cut of 5 per cent. in pay.

(b) *Class I Railways (excluding B. & N. W., Jodhpur, N. S. and R. & K.).*

Years.		Number of Staff on 31st March (Open lines only).				Cost in lakhs of Rupees (including Construction).			
		Gazetted.		Non-gazetted.		Gazetted.		Non-gazetted.	
			%		%		%		%
1929-30	..	1,826	100	724,129	100	3,35	100	34,47	100
1933-34	..	1,701	93	609,817	84	2,96*	88	30,21*	88

* Includes a cut of 5 per cent. in pay.

As a matter of fact we believe the fault lies in the opposite direction and it is the retrenchment of the superior staff that has been carried too far. It is in our experience most important to ensure that an adequate administrative staff is maintained, particularly during times of depression. This staff supply the brains and the driving power of the whole organisation. These qualities are needed in the highest degree when, as in bad times, every energy is required for the discovery of more economical methods, and for their immediate application.

We shall have occasion to refer to the unfortunate effects of this policy in connection with several proposals which are made later in this Report. Here we are concerned only with its more general aspect.

Every administrative officer has certain routine duties to perform, and this work is of a kind which cannot be postponed. If the numbers of such officers are drastically reduced, the whole of this routine work falls on those who remain, and absorbs the time which they should give to more important matters.

We have been struck with the insufficiency of personal intercourse between the Members of the Railway Board and the Agents of the various railway administrations ; this applied also as between the Agents themselves and the officers or traders at outlying parts of their systems. Our enquiries have shown that this is due to the fact that with the reduced number of the higher administrative posts, the Members of the Railway Board and the Agents are tied to their offices to an extent which is injurious to the proper functioning of the organisation as a whole.

In the case of the Railway Board, we consider it essential that one Member of the Board, with special experience in the needs of industry and commerce, should be free to visit the headquarters of all the different administrations at frequent intervals, particularly when matters of commercial importance arise for consideration. It would be his duty to represent the policy of the Board on all such questions, to discuss it with the Agents concerned, and to devise with them the best means of putting it in force. For all these purposes frequent and intimate personal intercourse is essential. It is impossible for the Chief Commissioner, the Financial Commissioner, or the Establishment Member to undertake this duty. The Chief Commissioner and the Financial Commissioner in particular have duties to fulfil in the Legislature in addition to their technical work, and they must continue to perform these duties until the

Federal Railway Authority is established. At the same time we consider that the duty cannot, having regard to its importance, be adequately discharged by anyone less than a Member of the Board. We recommend, therefore, that the appointment of Traffic Member of the Board, which we understand is at present temporary, should be made permanent. It should be his duty to maintain the closest personal intercourse with the various railway administrations on all matters of policy which come before the Railway Board, but particularly on questions of commercial development, to which we attach great importance, and with which we deal fully in Chapter VIII.

So far as the individual administrations are concerned, the same principles apply. Every Agent and chief officer should have a deputy capable of relieving him of routine duties, and of sufficient status to be able to act for him when he is absent from headquarters inspecting the railway, or interviewing the Railway Board.

79. *Adequacy of New Scales of Pay.*—New scales of pay applicable to gazetted and non-gazetted railway staff were introduced in 1933 and 1934 respectively. These scales represent large reductions as compared with the old scales, and we feel we are called upon to express some opinion as to their permanent effect. From this point of view, the fact that the new scales have been applied to new entrants only is irrelevant. Such limitation may (particularly in a period of bad trade) obscure for a time the real effect of the scales as a whole. But if the general standard of pay set up is too low, the position will only be the worse when a period of prosperity arrives to test its adequacy. In such circumstances staff who were willing to accept the scales as better than nothing will leave the service in considerable numbers if better conditions are offered for comparable skill in other lines of business.

We found some uncertainty as to whether the new scales were in fact too low to obtain and keep the right type of recruit. On the whole the general opinion expressed was that the scales were adequate *at present* to secure all types of Indian labour, technical and non-technical. We have been unable to obtain adequate information as to the wages and salaries of comparable forms of labour in the outside market, and we feel we can do no more than quote the general opinion as above.

On the other hand, we have been informed that the new scales have been found to be definitely too low to attract the skilled European staff required in workshops. Reference has already been made to this point in Chapter III (paragraph 50).

It is, further, doubtful in our view whether the new scales will prove adequate for the recruitment of Europeans for the gazetted ranks. The recruitment of such officers has diminished during the bad times, and definite evidence on this point is not yet forthcoming in sufficient volume. We note, however, that the new scales applicable to such officers represent a reduction of 25 per cent. in salary payments over the first period of 15 years ; and when the recruitment of Europeans is reinstituted in normal volume it will become a matter of great importance that recruits of the right quality should come forward in sufficient numbers under the new scales. In our opinion the quality of the new recruits is a matter of the

first importance to the railways, and it is sound economy to pay the price needed for the best quality, rather than accept anything less than the best.

The situation should, therefore, be closely watched, and if the authorities find difficulty in securing a first class type of European recruit, some steps should be taken to revise the scales of pay offered.

80. *Position of Accounts Department.*—Attention has often been called in the past to the peculiar position of the accounts department in the organisation of Indian state-managed railways.

At one time, we understand, this department stood definitely outside the railway organisation, being in fact a branch of the Government Audit Department. At a later date accounts and audit were very properly separated, and the accounts department of the individual railways came under the control of the Financial Commissioner of Railways, who in turn owed direct allegiance to the Finance Member. Nevertheless many of the staff of the accounts departments, particularly those in the higher posts, were audit department men, with claims to promotion in the audit department. These men might be transferred at the direction of the audit department, and their places taken by other men from the audit department.

This state of affairs still exists, though there is happily an increasing tendency to recognise the fact that the Accounts Officer should be the financial adviser of the Agent, and one of his chief supports.

We think the time has come to put the matter on a more precise basis, following the model generally adopted by railways elsewhere.

(*a*) The Accounts Officer should be definitely regarded as being responsible to the Agent.

(*b*) The Accounts staff should be definitely railway staff. When questions of pay, promotion, or selection arise among them. which are beyond the authority delegated to the Accounts Officer, the decision should rest with the Agent after consideration of the recommendation made to him by the Accounts Officer.

(*c*) The Accounts staff should be recruited, as at present, for the service of the individual administration, and their ladder of promotion should lie inside that administration.

(*d*) The routine work of an Accounts office is heavy and apt in the long run to have a deadening effect on the staff. It is difficult to pick out men of ability at an early stage, and at a later stage all initiative has too often evaporated. For this reason particular consideration should be given to the possibility of exercising some selection, by examination or otherwise, at an early stage of a young men's career ; (see paragraphs 108 and 111).

(*e*) It is also necessary to take a wide survey of possible candidates for the highest posts in the department. We recommend that for these posts applications be invited from other railways and from the different branches of the audit

department ; and that the final selection lie with the Railway Board, on the recommendation of the Financial Commissioner.

(*f*) Although the Accounts Officer of the individual railway will cease to look to the Financial Commissioner as his chief, it should be understood that the Financial Commissioner may correspond with him direct on matters of finance ; and that the Accounts Officer also may, with the knowledge of his Agent, initiate a correspondence on matters of finance with the Financial Commissioner.

The foregoing recommendations are founded substantially on the British railway practice if the Chairman, or the Chairman of the Finance Committee, be substituted for the Financial Commissioner. The system has been found to work satisfactorily in Great Britain. It ensures full contact and proper subordination between the General Manager and the Accountant, whilst securing to the Accountant an adequate measure of independence on all financial matters.

81. *Excessive Regulation.*—Our enquiries have shown that there is a very strong feeling among all the railway administrations against the alleged multiplication of the rules and regulations imposed upon the railways. It has been represented to us that an unduly large proportion of the time of Agents and other high administrative officers is absorbed in dealing with criticisms and correspondence arising out of the application of these regulations ; that, in consequence, they are tied to their offices and unable to attend to more important matters that call for their attention outside.

There was universal complaint from all the Agents we interviewed that the regulations were in themselves unnecessarily complicated, that the correspondence was frequently vexatious, and that matters of very small interest, or belonging wholly to past history, were pursued in a pedantic manner which would almost imply that Agents and others occupying high administrative posts were unfit for their responsibilities.

It has been impossible for us to go into these complaints in such a way as to satisfy ourselves how far they are justified ; as we indicate later, we believe that there is a good deal to be said on the other side ; however that may be, the general feeling of exasperation on the part of the railway administrations, whether state-managed or privately-managed, must be taken into account as a psychological factor of considerable importance. We do not hesitate to say that at the present time a sense of grievance among all the railway administrations is definitely impairing the efficiency of the work done.

The evidence we received tends to show that the volume and complexity of the regulations, and of the correspondence arising out of them, are on the increase ; we are frankly apprehensive that unless some steps are promptly taken to clear up the situation and arrest the evil the energy and initiative so necessary for an efficient railway administration will be dissipated and lost in the friction of what may be called inter-departmental correspondence. Excessive regulation is a defect of all large organisations, but in a bureaucratic state like India it is a vice which must be combated at all costs if any measure of efficiency is to survive.

We consider it to be urgently necessary that the Railway Board should frankly discuss the whole situation with the Agents and take any steps that are open to them to remove the grievance.

The regulations complained of generally relate to the following subjects :—

(*a*) Salaries, promotion, leave, etc.

(*b*) Discipline and appeals.

(*c*) Accounts and audit procedure.

The first two items are similar in character. They touch the personal and financial interests of the staff at every point. A code of rules on such matters is absolutely necessary in order to secure uniformity and preserve a sense of justice in any large organisation. These rules should be absolutely observed and no exception should be made. If this is recognised, a vast amount of correspondence and irritation can be avoided. Agents of both the state-managed and the privately-managed lines should realise the necessity of a code of regulations, and should appreciate the advantage of a rigid interpretation. The "discretion" for which so many of them pleaded would in our opinion only lead to confusion and spread a suspicion of injustice.

On the other hand, the rules should be overhauled so that authority is decentralised to the utmost possible extent, and a serious effort should be made to simplify them. They should not be complicated to cover hard cases, or to provide against occasional misunderstandings. Lastly they should be codified so that the rules affecting any particular case can be turned up with the least possible loss of time.

As a matter of organisation every Agent should have a deputy (with subordinate staff) whose responsibility it should be to keep himself posted on every detail of the regulations and of the precedents that bear on any particular case. It should not be necessary for the Agent to burden himself with knowledge of this kind or take anything more than a formal share in the correspondence which inevitably arises. In cases of difference of opinion it should be open to the Deputy Agent to discuss the matter personally with the Establishment Member of the Board or with his subordinates.

82. *Audit and Accounts Regulations.*—The case of the accounts and audit regulations stands on a different footing. It must be conceded at once that the compilation of accounts is a complicated matter depending upon the absolute observance of regulations. This is a matter solely for the Accounts Officer and his expert staff. Neither the Agent nor any other member of the railway administration need be in any way concerned. Everyone would agree that the accounts of the different administrations should be prepared as far as possible on a uniform basis if useful comparisons are to be made. This can be achieved only by detailed regulation.

83. *Proper Function of Audit.*—It seems to us equally reasonable that the accounts thus prepared should be subject to audit as in the case of a commercial concern. The auditors in our opinion should be satisfied that all expenditure has been incurred under proper authority, that all revenue and expenditure have been credited or debited, as the case may

be, under the proper heading in the accounts, that expenditure has been properly allocated as between revenue and capital, and that the accountancy as a whole has been carried on upon sound and honest lines.

We are advised, however, that the statutory obligations of the Auditor General go far beyond these limits. He is responsible for comparing the expenditure with the budget appropriation under each head and he is authorised to call for an explanation of any discrepancy ; whilst under the somewhat invidious term of " the higher audit " he is charged with duties of an almost inquisitional character. He is burdened with the responsibility for questioning every financial transaction of the administration from the remission of demurrage charges, or the grant of leave allowances, to the letting of contracts, and the conclusion of long term agreements ; and if we may judge from the evidence we have received the transactions of the past, however remote, fall within the orbit of his investigations no less than those of the immediate present.

It is this feature of the Auditor General's examination, amounting almost to a roving commission to criticise every detail of the management of the railway, which leads to the strongest complaint on the part of the railway administrations.

These complaints, in so far as they are directed against the system, seem to us to be entirely justified. We submit that a substantial modification of the present practice is urgently needed. It has been said in defence of it that since public monies are involved special measures for audit examination are necessary. We should admit the validity of this argument if it could be shown that the present arrangements resulted in a net financial benefit to the revenues of India. This appears to us to be the test, and the only test, of the value of the present arrangements. We do not think that it can be said to meet that test.

The railway audit is expensive ; the cost amounts to 17 lakhs of rupees per annum. This does not include the cost imposed on the railway administrations in conducting a voluminous correspondence, or in the sacrifice of the time of high administrative officers in the consideration of points raised by the examining auditor.

It is difficult to assess the credit side of the amount. We appreciate that the benefit of the audit is shown not so much in money definitely saved as in the prevention of fraud or error, and it would be rash to put a money value upon this. The Agent and the Accounts Officer, however, are both equally interested in the prevention of fraud and error, and in ordinary commercial conditions their supervision would be held to be adequate. We see no reason to doubt its adequacy in the case of the Indian railways.

In our view the special steps taken to protect the public money through the medium of the " higher audit " involve in fact a loss of public money, apart altogether from the injury to the efficiency of the railway organisation. We are confirmed in this view by the experience of the railways in Great Britain. The accounts of the four British railway companies, whose annual expenditure is three times that of the Indian state-owned railways, are audited at a cost which does not exceed £13,000 per annum. The audit is carefully carried out, but limited to essentials. It is possible that the railway Accountant in Great Britain does some work which falls to the share of the Auditor General's department in India.

If so, there would appear to be the greater need to look into the organisation of the accounts department in India, which is already relatively more expensive than in Great Britain (see paragraph 67). However that may be, it seems beyond dispute that the audit duties are much more cheaply carried out where railways are controlled on commercial principles, and we see no reason to suppose that the work is less efficiently performed.

We are aware that the responsibility for the present state of affairs does not rest with the Auditor General's department and that a modification of statute would be necessary in order to effect any substantial change in the arrangement. We should think it desirable to press for some modification of the statute were it not that the impending creation of a Federal Railway Authority will introduce a radical change in the situation.

The Government of India Act 1935 provides that the accounts of the Federal Railway Authority are to be audited by the Auditor General for India. It also provides that the Authority shall discharge its functions " on business principles ", and we assume this to mean that the audit will be carried out on the same general principles as the audit of the accounts of a first class business undertaking. In that event the Auditor General will be spared the necessity of carrying out investigations as to the application of Government administrative regulations or as to the business justification of particular items of expenditure. Such matters fall within the responsibility of the Agent and the Accounts Officer, and on business grounds it is undesirable that this responsibility should be divided with other parties. We believe the change will be welcome to all concerned.

In this belief, and on the assumption that the creation of a Federal Railway Authority is a certainty of the reasonably near future, we make no recommendation in regard to any change in the statutory duties of the Auditor General. We would urge, however, that during the short period which remains the special duties of the Auditor General's department should be discharged with every regard to the desirability of avoiding unnecessary correspondence and of concentrating attention on current matters of major importance.

We understand it is already the practice in most cases for the correspondence between the Auditor General's department and the railway administrations to be carried on solely with the Accounts Officer of the administration concerned. We recommend that this should be adopted as the invariable rule. It is for the Accounts Officer alone to make such enquiries as may be necessary of the Agent or other responsible officers of the administration. It is for him also to keep these enquiries to the minimum necessary for dealing with the points raised by the Auditor General's department.

84. *Questions in the Legislature.*—Complaint has also been made to us by several Agents as to the loss of time and the expense involved in supplying replies to questions raised in the Legislature. It is sufficiently clear from a study of the notice lists that the Members of the Legislative Assembly push their privilege of asking questions in regard to the conduct of public services to a limit which would be regarded as excessive in any other country of the world. A study of the questions put down for answer for the 1936, Simla Session of the Legislature shows that out

of 1884 questions no fewer than 607 concerned the railway service. One of these questions was subdivided into no fewer than forty-one separate questions and multiple questions on this scale are the rule rather than the exception. It is not for us to comment on this state of affairs, which may very well be of an exceptional and temporary character.

The parliamentary question is a permanent and inescapable feature of all democratic government. It may be abused or it may be kept within reasonable limits. In the case of railways such questions are often detailed, and sometimes vexatious, but the control in this matter does not, and cannot, rest with the railways. They must accept the institution as it is, and adapt their organisation accordingly.

It is essential that they should supply the Honourable Member, who has to reply, with such information as he needs, and supply it correctly. To do this requires a staff with specialised experience who must take full responsibility for the accuracy of the data supplied. Where the questions, as in India, are voluminous and detailed the specialised staff will be expensive ; the services of such staff will be required not only by the Railway Board, but also by the individual administrations.

The extra expense must be accepted, and recognised as the inevitable accompaniment of state ownership and management as it has come to be understood in India. To do so is the only true economy in dealing with this feature. On any other understanding the time and energy of the Agent and of the management generally will be frittered away in the checking and testing of information about matters which owe their only importance to the source from which the questions emanate ; and the Honourable Member and the Legislature will in too many cases receive the information in unsuitable form or inaccurate in detail.

The responsibility for the preparation of answers to questions may conveniently be undertaken by the officer specially responsible for dealing with staff regulations and establishment (see paragraph 81), the more so as a large part of the questions asked relate to staff matters. We would urge, however, that on individual administrations this officer should not be less in grade than a Deputy Agent and his section should be amply staffed to enable him to discharge his duties properly.

85. *Divisional Organisation.*—We have received a good deal of criticism of the "divisional" organisation which is in force on some railways. The object of adopting this organisation being to decentralise authority, and to give more power to local officers, it is a little surprising that the criticism of the system came so largely from chambers of commerce, who should receive most benefit from such decentralisation. It was alleged by one chamber, as a reason for their opposition, that the divisional organisation injured the prospects of Indian officers, who would be regarded as unsuitable for the position of Divisional Superintendent. But this fear appears to be unjustified. There are in fact Indian officers holding these positions, and we could learn of no bar to future appointments of the same kind.

In general it was argued that the divisional organisation must be more expensive than the older departmental organisation. We have examined the circumstances but cannot learn that there is any substantial

ground for this view. Our enquiries lead to the conclusion that the present organisations, whether divisional or departmental, have been evolved as the result of prolonged experience and as best meeting the conditions obtaining on the various administrations.

In the case of large systems where long distances separate the railway headquarters from important centres of population, the decentalisation and delegation of authority provided by the divisional system has much to commend it. On the other hand, the departmental system has been found more suitable on smaller systems, where district offices are not far distant from headquarters or where one centre of population vastly outweighs the rest.

These appear broadly to be the lines upon which the organisation of Indian railways has proceeded and we see no occasion to suggest any alteration.

86. *Orgdnisation of Transportation Department in relation to Mechanical Department.*—Reference has already been made to the organisation in force on several railways as it affects the respective provinces of the Mechanical and Transportation Departments. One of the tendencies to which this division of responsibilities gives rise has also been indicated. A further difficulty of a more general character arises in connection with the Chief Mechanical Engineer's budget. It is essential that this budget should cover the whole cost of maintenance of locomotives, carriages and wagons. This is not always the case. On some railways we find that the Transportation Department has a separate budget for the repair and maintenance of locomotives, and, as a consequence, is building up a separate organisation for service repairs over which the Chief Mechanical Engineer has no control. We consider this to be undesirable, and recommend that the situation should be re-examined in the case of all railways where the repairs carried out in running sheds do not come under the responsibility of the Chief Mechanical Engineer.

87. *Present System of Stores Purchase.*—The present system of purchase of stores is a mixed system. The purchase of coal is carried out through the Railway Board ; the purchase of other stores is divided on no very clear principle between the Indian Stores Department and the individual railway administrations.

We have no criticism to make in regard to the purchase of coal by the Railway Board. It is inextricably involved with the working of the railway-owned collieries and seems to us to be efficiently conducted, along with the distribution of the coal purchased for, or allotted to, the different railways. We received some complaints from railways as to the quality of coal distributed, but they served on the whole mainly to bring out the reasonableness of the general principle upon which the Board is acting.

As to the purchase of other stores, we appreciate the need of purchasing many of the minor descriptions of stores locally, by the individual administrations, through their own stores department ; but we see no good reason for perpetuating a duplicate system of purchase for the major stores, which should be bought in the cheapest market with a reasonable leaning in favour of the indigenous commodity.

88. *Indian Stores Department.*—We received some complaint from the administrations as to the expense, and the delay, involved in purchase

of stores through the Indian Stores Department ; in a highly centralised department of this kind some delay will no doubt occur in particular cases, and the whole process from the occurrence of the demand to its satisfaction may take longer than the process of direct purchase by the individual administration—just as an individual purchaser can arrange to meet his personal requirements as a general rule more quickly than a railway administration acting through its Stores Superintendent. But the criticism, if valid, is not vital. On the other hand central purchase should be cheaper, should provide for more efficient inspection and for better standardisation, and should be able to develop new sources of supply more effectively. We see no reason to doubt that the Indian Stores Department is in fact able to provide these advantages, and we recommend that the purchase of railway stores through the department should be gradually extended ; at the same time the function of the Stores Superintendent on the individual administrations should cease by degrees to be that of a purchaser of stores and should be approximated gradually to that of a storekeeper.

We think it important to emphasise, however, that a centralised purchase department is exposed to two great dangers.

In the first place, it distributes enormous sums of money, and must before all things be above suspicion as to the equity of the principles by which it is guided, and the integrity of its methods. This, we believe, is fully appreciated in the department itself, which wisely courts publicity in all the action which it takes ; but the danger must be kept in mind equally in the staffing of the department, and particularly in filling all the higher administrative posts in it. There must be no lack of an adequate staff of high ability at the head of the organisation, and their character for integrity and impartiality must be maintained at a level above all challenge.

The second danger of a large stores purchasing organisation is that it tends to become unduly conservative and bureaucratic in its methods and outlook. The quality of the commodities bought becomes standardised; change and experiment are discouraged. The main protection against stagnation of this kind must always be found in the character of the men at the head of the department, and we have already expressed our views on the need of securing the best possible talent in these posts. Much can also be done by encouraging development and research in conjunction with representatives of the consuming departments.

89. *Extension of Research by Standards Office and Indian Stores Department.*—The Standards Office under the Railway Board is ably staffed and has done much useful work. The office has its own research section and is, we believe, in close touch with the Stores Department. We suggest that the two organisations consider whether the scope of the research organisation might not with advantage be extended to cover practical experiments on a wider scale than hitherto, in particular with reference to the trial of new materials and methods under ordinary railway working conditions. We believe there is much to be done in this respect, if the scheme is boldly initiated, and that considerable economies can be realised, which will more than cover the expense of the additional staff required.

90. *Control of Out-Station Stores.*—We have suggested that, as the Indian Stores Department extends its purchase of railway stores, the railway Stores Superintendent could occupy himself more with his proper function of storekeeping, and we feel it necessary to emphasise this in regard to stores used in workshops and running sheds. On some lines these pass out of the control of the Stores Superintendent at the head-quarters stores, the consuming departments being responsible for storage on divisions and at out-stations. This organisation is faulty, and we recommend that the divisional and out-station stores should be controlled by the Stores Superintendent, and that materials stored therein should only be charged out to consuming departments when issued for use.

CHAPTER VI.

Statistics.

91. We have reviewed the system of statistics in use on the Indian state-owned railways and the organisation set up for their compilation and interpretation.

The statistics fall under two heads :—

(*a*) those prepared by the Railway Board from data supplied by the railways ;

(*b*) those prepared by the railways for domestic use.

92. *Railway Board Statistics.*—The Railway Board statistics are published annually in Volume II of the Administration Report and certain of the figures are, in addition, worked up into periodical abstracts for circulation to the railways. The nature of these statistics and the manner of compilation are prescribed by the Railway Board.

We find that the railways make practically no use of Volume II. One objection is that it is not available until some ten months after the period to which it relates ; another that comparisons are usually with the preceding year and the data are thus inadequate to show the trend of the results. Little use, too, appears to be made of the periodical abstracts, on the ground that differences in conditions between one railway and another detract from the value of the comparative figures. There is also a general suspicion, supported by some concrete examples, of lack of uniformity in the basis of compilation of Railway Board statistics.

In our opinion too much weight is given to these objections. It is admitted that Volume II can be improved, but even in its present form it provides a comprehensive survey of the results of railway administration year by year. Its practical use should be considerable in enabling Agents not only to watch the effect of long-term policies, but also to measure the efficiency of departmental work. There are, indeed, few phases of railway work which do not stand to gain by well-informed application of the lessons to be drawn from the published statistics.

The periodical abstracts are of more doubtful value. Inter-railway comparisons at the best can furnish only a *prima facie* case for investigation, and annual figures are more generally useful than monthly figures for this purpose.

The compilation of statistics for the Railway Board is in the hands of the Controller of Railway Accounts, whilst their interpretation is one of the responsibilities of the Traffic Member of the Board. This seems a suitable arrangement.

93. *Domestic Statistics.*—Domestic statistics are prepared by the railways according to their individual needs. In this matter there is no attempt at uniformity.

The railways have two distinct systems of organisation for dealing with statistics. The Bengal-Nagpur, Eastern Bengal, Madras and Southern Mahratta and South Indian Railways each has a Statistical Officer who is responsible for both compilation and interpretation; while on the Assam Bengal, Bombay Baroda and Central India, East Indian, Great Indian Peninsula and North Western Railways compilation is carried out in the accounts department and interpretation is under a Deputy Agent or is left to the departments.

We consider that the balance of advantage lies with the system of organisation under which a Statistical Officer is responsible both for compilation and interpretation. It is only this combination of duties which justifies the appointment of a full-time Statistical Officer. On the railways employing this system far more attention is being given to interpretation of statistics than on the railways where interpretation is, at the best, only a part-time function of a Deputy Agent.

This is due, however, less to the difference in organisation than to the lack of staff under the Agent's control capable of utilising the statistics prepared by the accounts department. We consider that this is a weakness which should be remedied.

We do not suggest any change in organisation. Assuming in each case the existence of adequate and properly qualified staff, a combination of compilation and interpretation is suitable for the smaller lines organised on a departmental basis, and the separation of the two functions is more suitable for the larger lines, particularly where organised on a divisional basis.

94. *Revision of Statistics.*—It is recommended that the system of statistics should be reviewed in accordance with present-day needs.

The existing system dates from 1924. At that time of prosperity, when traffic came to the railways as a matter of course and road competition was unknown, it was natural that much importance should be attached to statistics relating to the working of the railways and relatively little to the character and volume of the business done. Viewed from the standpoint of to-day, there is not a fair balance between operating statistics and commercial statistics.

An illustration of this was submitted to us in evidence. Elaborate statistical records are kept of shunting operations, and the cost of these operations amounts on one of the railways to Rs. 7 lakhs a year. Against this there are traffics like sugar which yield a somewhat similar amount in revenue, but the only statistics in respect of these are the annual tonnage and gross receipts. It was claimed, and in our view properly, not that less attention should be given to the expenditure of Rs. 7 lakhs on shunting, but that more attention should be given to the sugar traffic,

to its origin and destination, and to other information bearing upon the means of increasing it.

It doest not appear that the discontinuance of any of the statistics at present prepared would enable any large saving to be made. Whatever alteration may be made in the style of presentation, the compilation of primary or fundamental units will continue to absorb the greater part of the total cost. We are, however, satisfied that a systematic review should point to certain statistics which can be discontinued and to others for which a simpler and cheaper method of compilation can be found.

95. *Unnecessary Statistics.*—Net passenger ton miles might be abandoned without regret ; this statistic is used mainly in calculating coal consumption per 1000 gross ton miles, and its exclusion could not have any material influence on the results.

Passenger zone statistics are at present prepared for the whole year in two six-monthly periods. The amount of work is considerable and it should be sufficient if this statistic is compiled for two representative months of each year.

Passenger station-to-station statistics were at one time compiled in respect of all pairs of stations, and bound annually in a volume of large dimensions. The Railway Board no longer require these statistics, but we are informed they are still being compiled by some of the railways. We do not think their usefulness is sufficient to justify the cost involved, and their compilation should be confined to selected stations where traffic is affected by road competition, or where exceptional circumstances exist.

96. *Misleading Statistics.*—Statement 15 of Volume II of the Administration Report is headed "Results of working Class I Railways". It contains a column showing the total railway working expenses, followed by a column showing those expenses divided between coaching and goods services on the basis of gross ton miles. Then follow columns giving derived statistics, of which the following two groups are examples :—

Coaching earnings per train mile.

Cost of hauling a passenger train one mile.

Profit on working a passenger train one mile.

Average rate charged for carrying a ton of goods one mile (Statement 13).

Cost of hauling a goods unit (*viz.*, one ton) one mile.

Profit on working a goods unit (*viz.*, one ton) one mile.

It may be admitted that "cost" statistics of this kind have a neat and compact appearance, and if they meant what they purport to mean there would be no criticism against them. But they do not ; the expert critic can make no use of them, and they lead the non-expert to false conclusions.

The matter is of too technical a character to be discussed at length here. We suggest that consideration should be given to the discontinuance of these figures. We cannot believe they are found to be of any practical use to the management ; and the evidence which was put before us on one or two occasions shows that they are certainly confusing to the public.

97. *Suggested Additional Statistics.*—On the other hand, there is scope for additional statistical information both to measure certain operations for which there are at present either inadequate statistics or none at all, and to afford guidance in commercial policy and practice.

A study of the variable costs incurred in connection with different classes of traffics would be of practical use to railway administrations. The enquiry might begin with export coal, since some doubt apparently exists as to whether the rates charged on this traffic cover the expenses incurred.

We have referred elsewhere (paragraph 63) to the desirability of booking goods trains in the working time tables, and the working of goods trains should be measured by regular punctuality returns.

We have also referred (paragraphs 62 and 182) to the urgent need for giving better transit time, and this feature of railway working should also be the subject of statistical record by all railways.

Little attention, we find, is paid to the cost of working goods sheds and we consider that statistics should be available both as to handling costs (except possibly in cases where contract labour is employed) and as to clerical costs.

The advent of road competition has made it necessary for Commercial Officers to have early and reliable information concerning the flow of traffic between points susceptible to competition ; this applies both to passenger and to goods traffic. We think that more could usefully be done in this direction.

The foregoing paragraphs are intended to indicate certain directions in which revision seems to be necessary or desirable. The question has been discussed in a general way with the railway administrations. As far as domestic statistics are concerned there is a readiness to adapt them to meet changes in circumstances, but this is not a universal attitude towards the Railway Board statistics. In some quarters, indeed, they are regarded as sacrosanct, and above criticism. But for the most part there is a desire, sometimes an eagerness, to find some oportunity for giving expression to ideas. No such opportunity exists at the moment.

98. *Conferences of Statistical Officers.*—There is at present no contact, except of a casual nature, between the railways on questions of statistics. Until April, 1931, there were periodical meetings of Statistical Officers, but these have been dropped on the ground of economy. We consider that these meetings should be revived and that their business should be conducted on the initiative of the Railway Board.

Most of the subjects to be dealt with at these meetings would, we conceive, fall under the following heads :—

(a) *Revision, including abolition of unnecessary returns and adoption of new returns.*—This should be a gradual and continuous process directed, on lines already indicated, towards keeping the system of statistics in conformity with hanging needs.

(b) *Uniformity.*—There should be complete uniformity in the basis of compilation of Railway Board statistics. This is not the case at present. In domestic statistics greater uniformity is attainable than now exists, and would be of advantage.

(c) *Standardisation of statistical forms.*—There is room for considerable economy under this head, particularly as regards domestic statistics. The more uniformity is attained, the greater will the economy be.

Adequate preparation of the subject matter to be considered would be necessary in advance of the meetings, in order to enable maximum progress to be made.

Recommendations made at these meetings would be subject to approval by the Railway Board and the Agents, except in respect of matters falling within the authority of the Statistical Officers.

In a general way these periodical meetings would be valuable as providing opportunities for an exchange of views on the compilation and use of statistics. New ideas could be discussed, and methods which had proved their merit on one railway could be explained with a view to being more widely adopted. A pooling of specialised knowledge and experience could hardly fail to suggest possibilities of improvement which might not otherwise be attainable.

99. *Staff to Interpret Statistics.*—Whilst we regard it as important that a revision of statistics should be undertaken on the initiative of the Railway Board, it is much more important that adequate and proper use should be made of the statistics compiled. This is, regrettably, not the case at present, except on the four railways which have Statistical Officers as part of their organisation. On the other railways and in the Railway Board's office the effect of retrenchment is obvious since it has led to an enforced neglect of statistics on the side of interpretation. It has been admitted to us that with the abolition of Statistical Officers on railways there are now very few officers who are thoroughly conversant with statistics, and that since the abolition of a Statistical Officer in the Board's office it has become impossible to deal adequately with this question.

This is a case where it seems to us that retrenchment was a short-sighted policy. It is an unwarrantable waste of energy and money to prepare every month, and every year, volumes of statistics which are put to little or no use. It is also a serious handicap both to the Railway Board and to individual administrations that they should lack the means of applying statistical control to the direction and management of the railway undertakings.

We recommend, therefore, that a Statistical Officer should be reinstated in the Board's office. His duties should be to measure the effect of new policies or experiments ; to co-ordinate the statistical work of the railways and generally to afford guidance in statistical matters to the railway administrations. It is essential that he should possess the requisite experience, and he should have a status that would enable him to make the fullest use of his special qualifications. We should like to see him stand in his relation to the Agents more as a consultant than as a critic.

It is also important to strengthen, on the interpretation side, the statistical organisation of the railways which do not possess a Statistical Officer. There is no justification, we think, for the appointment on those railways of full-time officers for interpretation only. The duties of interpretation, however, should be specifically included in the responsibilities of one of the Deputy Agents and he should be provided with such subordinate staff as may be necessary to bring to his notice any statistical results which, *prima facie,* call for investigation, and generally to discharge his responsibilities in this matter.

100. *Workshop Costs and Statistics.*—We have examined the system of costs and statistics prepared in connection with workshops and the repair and maintenance of rolling stock, and have been forced to the conclusion that these statistics are excessive both in number and in volume. On the other hand, their practical value is limited and they do not appear to have been found useful for supervising costs or securing economy of management. They also vary materially in character and composition between one workshop and another.

It is recommended that these statistics should be thoroughly overhauled with a view to securing a reduction in the number of returns, a more immediate utility for purposes of supervision, and uniformity between one workshop and another. The following points will need special attention :—

(*a*) Method of allocation of costs.

(*b*) Determination of the items to be included in variable and non-variable costs. These should be definitely scheduled.

(*c*) *Locomotive Workshop Repairs.*—A statement is compiled monthly. It is understood, however, that the only purpose for which this statement can be used is to assess the amount of the budget figure for the ensuing year. It is suggested that a six-monthly or annual return would serve the same purpose.

We attach particular importance to the question of uniformity, since it is only in this way that comparisons can be made between the costs of particular operations at different workshops ; such comparisons are of the utmost value in securing a full measure of efficiency.

We understand that the Railway Board has in fact placed an officer on special duty to draw up a code for the uniform allocation of costs. This valuable investigation should be pressed forward and a uniform code should be applied to all railways as soon as practicable.

CHAPTER VII.

Staff Discipline and Training.

101. *Complaints against Railway Employees.*—Strong complaint was received by us from chambers of commerce and representatives of Provincial Governments of serious shortcomings in the conduct of railway staff, especially those in minor positions of authority. These complaints referred particularly to incivility, dishonesty and lack of interest in the development of railway business. The representatives of some of the railway

administrations considered them to be exaggerated but in most cases their validity was admitted. The state of affairs, as it exists, was deplored, but no adequate remedy could be suggested, having regard to the alleged prevalence of similar conditions in other public services and walks of life in India.

We do not know to what extent incivility, dishonesty and lack of interest prevail elsewhere in India. To our minds this consideration is irrelevant. We feel very strongly, however, that no public service in any part of the world should sit down quietly under accusations of this kind, whether admitted or half-admitted. It is, in our view, essential for the good name of the railways of India that a determined effort should be made, and made continuously, to root out these evils and we have given much thought to the nature of the action to be taken.

We deal in turn with each of the main items of the indictment.

102. *Incivility.*—It is alleged that the incivility of which complaint is made is general, but is shown particularly to third class travellers. This is in our view particularly reprehensible, since it is more especially the third class traveller, in many cases slow, illiterate and helpless, who stands most in need of civility and attention. It is among this class of traveller also that we believe the most fruitful possibilities of travel development are to be found ; such possibilities cannot be realised, however, if the small cultivator and town dweller look upon the railways as unfriendly and their regulations as incomprehensible. We do not doubt that there are stationmasters, assistants and booking clerks who do their best to establish good relations with their local public, rich and poor. It is nevertheless evident that there are many cases where this is not done, and where the holders of such positions misuse them in order to assert their importance at the expense of the lower class traveller.

We are of opinion that a concerted effort should be made without delay to put an end to this state of affairs. Meetings should be held at which Divisional Superintendents should talk personally to their principal stationmasters and such of their responsible supervisors as come in contact with the travelling and trading public. These in turn should personally address the members of their subordinate staff and impress upon them the paramount necessity of treating their public as customers whose patronage is to be sought and whose goodwill is to be cultivated. Even if such an attitude were not at all times desirable, the coming of road competition has now made it essential ; and it is wise to recognise this fact, however unwelcome it may be. Incivility drives would-be customers into the arms of a competitor ; it is not only a discredit to the railway service, but it is bad business as well.

Lectures on civility may raise a smile, but they have been found valuable elsewhere. We believe that the proper organisation of such lectures for the benefit of station staff, guards and others would be attended with particular benefit in India, where the mere fact that such lectures were organised under the aegis of high railway authority would of itself impress the staff with the importance of new standards of civility and with the personal benefit to be obtained from the application of such standards to the ordinary duties of railway life.

From this point of view the remedy is to be found along lines to which we shall make fuller reference later—the development, by deliberate educational methods carefully thought out, of a higher sense of professional self-respect and of a more active esprit-de-corps than appears to exist at the present time. The good name of his own administration for civility and efficiency should be as important to the railwayman in India as we believe it to be in Great Britain and in other Western countries.

We believe that the effort to maintain a proper standard of civility will receive material assistance if the higher supervising staff are encouraged to take immediate notice of any incivility which comes under their observation and (what is at least equally important) to commend any special evidence of civility and attention shown to any members of the travelling public of whatever class.

We feel that we cannot leave this subject without adverting to another complaint of a similar kind which has been made to us by various chambers of commerce. This relates to the seeming indifference with which written complaints are received and the apparently unnecessary delay which takes place in replying to such complaints. If this criticism is justified, as we believe it is, it points to another form of incivility which could and should be prevented by a more active realisation of the fact that it is the business of a railway to give satisfaction to its public, no matter how unreasonable or trivial their demands may be. We suggest that special efforts should be made at all offices to expedite the disposal of complaints and that at stations a record should be kept of complaints received, with a note of the date of receipt, date of acknowledgment and date of reply ; further, that this record should be inspected at irregular intervals by the higher supervising staff.

We have observed at several stations that the public are invited to notify any incivility or lack of consideration shown to them. This is all to the good and indicates, what we believe to be increasingly the case, that the railway administrations are aware of the defect in their service and are anxious to remedy it.

103. *Dishonesty.*—This is a vice which is alleged to be endemic in the railway service as well as in other Indian public services. It is much more difficult to deal with than incivility, but none the less we feel that determined efforts must be made to put an end to it.

So far as our information goes it ranges from the mere offering and acceptance of ' customary ' tips for duty done to the exaction of heavy payments by responsible officials as the price of securing the performance of duties which are clearly incumbent on them without payment.

The main difficulty in dealing with this disease is the impossibility of obtaining firm proof. Merchants themselves are involved and are afraid of giving evidence, since this might prejudice their future relations with the railway staff. The only way of tackling the abuse is, we believe, for railways on the one side, and for chambers of commerce, other trading associations and individual members of the trading public on the other, to initiate a combined campaign against it. We suggest that joint meetings of railways and chambers of commerce should be held in the principal business centres, at which the traders should be asked to give, in confidence, full information as to the types of corruption practised. If the railways

are able to satisfy the traders that they intend to deal seriously with the evil, some basis might be found for mutual co-operation in the campaign. It is evident that the railways must be prepared to suggest a plan of action and that the traders must be asked to resist and report all efforts to continue old corrupt practices. It may be assumed that the railway plan of campaign will include a special warning to the staff, increased inspection and severe punishment of offending members of their staff. In this connection we suggest it should be made clear that the punishment will relate to *future* offences only and that there will be no attempt to open up the past. Otherwise there will be a tendency for the staff to bind themselves together against discovery and to obstruct improvement ; in this way a policy designed to ameliorate might come to be regarded merely as punitive.

We believe that by co-operation of this kind between the railways and the traders much can be done to eradicate corruption. It should be added however that such co-operation must be continuous and must be kept alive by recurrent meetings, if things are not to fall back to their present wholly deplorable level.

Action of the kind indicated in the preceding paragraphs, useful as it would be, would not, we fear, meet that other form of dishonesty which victimises the third class passenger. There are well substantiated complaints that booking offices are deliberately kept closed until a few minutes before train time so as to facilitate errors (always in favour of the booking clerk) in the sale of tickets and the giving of change. It is claimed that third class passengers are throughout their journey constantly harassed by ticket collectors for dishonest motives. Nor are third class passengers the only members of the travelling public to suffer in this way. We have had similar complaints from upper class passengers, affecting such questions as reservations of berths, which appear to us to be well founded.

The obvious remedy in these cases is increased inspection, particularly of a surprise character, though this entails additional expense. It is alleged that such remedies defeat themselves, since the inspecting staff soon joins in the graft. Nevertheless we cannot admit that this difficulty should be regarded as insuperable. The inspecting staff, transferred frequently from point to point, should report periodically to a superior officer able to judge of their good faith. Cases of established dishonesty should be rigorously dealt with in accordance with the disciplinary regulations.

104. *Disciplinary Regulations.*—It was several times suggested to us that the regulations regarding the discharge and dismissal of the staff, which have been framed to give the staff the fullest protection, have in fact the effect of making it extremely difficult to procure the discharge or dismissal of delinquents, owing to the cumbrous procedure involved. We have carefully examined the rules in question and do not consider that such criticism is well founded. It is essential that an employee charged with an offence rendering him liable to dismissal or removal from the service should get a fair and patient hearing ; the rules in question ensure this and should be strictly followed. Discretionary powers are, moreover, vested in the Agent and heads of departments enabling them to deal with exceptional cases. We do not recommend any alteration in the rules.

105. *Training and Education.*—Whilst these measures are being taken to deal directly with the evils of incivility and dishonesty among the staff, the organisation of a more complete arrangement for their training and education as a whole should be considered. It is in this direction, we believe, that the most enduring remedy for incivility and dishonesty is to be found. It is to be regretted that during the years of depression the expenditure on this important feature of railway welfare has been steadily reduced. We regard this action as shortsighted, and consider that the policy must be definitely reversed if the quality of the service is not to deteriorate still further. A comprehensive scheme should, we consider, be drawn up somewhat on the lines set out in the following paragraphs.

106. *Extension of Scope of Area Schools.*—Several of the administrations have area schools for the training of subordinate supervisory staff, and those which we have seen reflected great credit on the organisations responsible for them. The schools provide courses of training for probationers in the subordinate grades, refresher courses and promotion courses. They cover the transportation and, in some cases, the engineering staff, *e.g.*, assistant permanent way inspectors. These schemes of education should be strengthened and extended ; every Class I administration should have such a school where the training given should cover as many grades as possible. The courses should include (where they do not already do so) carefully prepared lectures to stimulate the interest of the students in their service, and to inculcate in them the paramount need of giving the service to which they belong a good name by strict honesty and close attention to the needs of the public.

The material required by the area schools in the form of courses of lectures is all available in one place or another at the present time. The lecturers should be drawn from the railway staff and be employed either whole or part time on this work.

107. *Advanced Courses for Subordinate Grades.*—We are strongly of opinion that training should not cease with the area schools. An advanced course should be organised for subordinates on the lines of the lectures organised in Great Britain to deal with such subjects as railway economics (commercial and operating), railway geography, railway law, statistics, etc. These have been found very successful in developing the general interest and self-respect of the clerical and higher grade staff. We believe they would have an even more marked effect in India, where the deficiency in the qualities named is more noticeable than in Great Britain. The lectures should be open to any members of the subordinate grades who care to attend, but they should attend in their own time and without extra pay. Such lectures should be organised at the headquarters of each of the principal railway administrations. Where two or more administrations are concerned at one centre it would be convenient and economical that the training should be organised jointly.

108. *Examinations and Selection.*—Courses of this kind should lead up to examinations, and we suggest that the most successful candidates in the examination should be interviewed by a Selection Committee consisting of responsible railway officers. Examination is far from being an infallible guide to ability but it is a valuable preliminary and, coupled with a personal interview, should enable the Selection Committee to pick

out each year a small number of the most promising young men in the subordinate grades for special training with a view to eventual promotion. In this way young men of capacity can be lifted out of the rut in which the present system of advancement by incremental scale and seniority is apt to bury them.

We think it desirable to stress this feature of the training as a whole. We believe that the opportunity of improvement offered by the lecture courses will be popular with staff, but it will be much more effective and will supply a more vigorous incentive if it is known that successful candidates in the examination receive the reward of special training for higher posts. Again we have to refer to the practice adopted by the British railways which has been found to be most successful in this particular feature.

109. *Special Commercial Training.*—In our next chapter we stress the necessity of developing the Commercial Department and the urgent need of preparing men specially for this branch of the service. Both the area schools and the advanced training here recommended offer a valuable opportunity of providing this preparation. A knowledge of railway rates does not of itself make a good commercial man. A capable rates clerk may be able to quote from the rate books with practised facility ; but it is as an " office " man that he has attained this facility, and by the time he has attained it he may be completely out of touch with the needs of the commercial world outside his office.

We have no doubt that, apart from the subjects already mentioned, commercial lectures are required dealing with trade statistics, the study of markets, advertising, and a number of similar subjects which fall within the province of an active commercial department. We know from the evidence placed before us during our tour that there are ample storehouses of such knowledge available ; and that the young Indian officer is very ready to learn. The proper imparting of this knowledge to the subordinate or to the probationary officer is, we think, only a matter of organisation and this should be an essential part of the system of training which we have outlined.

110. *Courses to be open to Officers.*—Though we have emphasised in the previous paragraphs the need of giving theoretical training to subordinates and probationers, we do not wish to imply that the courses of lectures when organised should not be open to other officers. It is of great importance that officers of all executive departments should be given an opportunity of learning something about the general business of the railway outside their own department. The possession of some all-round knowledge of railway administration is especially desirable for officers on a railway with divisional organisation, on which a divisional superintendent may be selected from any one of the executive departments. The courses of lectures we have suggested above will do much to help a departmental officer to obtain this knowledge and widen his outlook.

111. *Selection Committees.*—We have already emphasised the fact that examination results, taken by themselves, are not an infallible guide to ability. Any selection made from the subordinate grades should be based both on examination results and on a personal interview, carried out

preferably by a permanent Selection Committee appointed for this purpose. Such a Selection Committee exists on certain of the administrations, consisting of the Deputy Agent (personnel) as chairman, with deputies or staff officers of the other principal departments as members. This we regard as a good model that might be adopted by other administrations. It should in any case consist of officers in whose judgment the Agent can place full confidence, and its recommendations should only be set aside for the most urgent reasons.

When suitable young men have been selected, it becomes a matter of at least equal importance to watch the progress of their practical training, with the object of giving them a varied experience and enabling them to show the direction of their abilities. This duty should also rest with the Selection Committee, who should receive for a time periodical reports of the progress made by each individual.

112. *Lecturers.*—There will undoubtedly be some difficulty in finding lecturers and instructors equal to the demands of the courses. In Great Britain university professors and others have come forward and, after having been given a limited special experience of railway work, have been found capable of delivering satisfactory courses of lectures of the kind required. Such men, having the lecturing habit, possess an initial superiority over railway officers who might be detailed for the purpose. In India it may well be more difficult to find lecturers of this class. If so, the demand must be met by setting aside particular officers for the purpose and liberating them either wholly or in part to attend to the duties in question. Since the preparation of courses of lectures entails much special work and overtime, it is suggested that some extra payment be made to such officers in recognition of the work undertaken.

113. We feel that some steps along the lines indicated in the preceding paragraphs are urgently necessary. In the first place the quality of the subordinate staff is in need of improvement and is at present, as we believe, deteriorating. In the second place, the process of Indianisation of the railway service as a whole is proceeding rapidly. Broadly speaking, we see no reason to regret the process ; but it is essential that the quality of the new staff should be brought to the highest possible level by proper selection in the first instance, and by adequate training afterwards. This training is at the present time, with few exceptions, conspicuous by its absence.

It is therefore not merely from the point of view of eliminating incivility and dishonesty that we recommend the immediate organisation of training courses for the staff, but with a definite view of producing in the future a more highly qualified Indian staff which will be ready to take over its full share of the responsibility of running the railways.

114. *Stimulation of Interest of Staff.*—A further defect alleged at the present time, in particular against the responsible station staff, is their lack of interest in the development of the business of the railway administration. It appears to us that this criticism is well founded, and that special steps should be taken to introduce a new spirit of enterprise and a more active business outlook among the staff.

This object can in our opinion best be promoted :—

(*a*) by the system of lectures and examinations outlined in the preceding paragraphs ;

(b) by a more vigorous policy of selection, training and promotion, based upon the results of the methods described above ; and

(c) by special steps for maintaining the interest of the staff in the results of their work. These may take many shapes :—

(i) *Suggestion Committees.*—The establishment of suggestion committees on the model of those existing in Great Britain.

(ii) *Quota System.*—The adoption of some arrangement similar to that of the quota system already so successful on the London, Midland and Scottish Railway. Two of the Indian administrations are, we understand, already experimenting on these lines, with favourable results.

(iii) *Magazines.*—The corporate spirit of the staff of the individual administrations could be stimulated by the publication of magazines specially devoted to matters interesting to them. Some administrations have their own magazines at the present time and we think that this policy should be enlarged. These publications would, however, be more attractive if they were of the comprehensive character of those issued in Great Britain and should include articles of a technical character. The magazines should be to a large extent self-supporting, but some contribution from the railway exchequer, particularly at the outset, should be regarded as sound policy.

The Indian State Railway Magazine which we have seen is a valuable periodical and is very well presented, but it is essentially for the tourist and has little in common with the type of publication which we have in mind.

(iv) *Lecture and Debating Societies.*—Special steps should be taken to encourage the formation of railway lecture and debating societies at the principal centres. These should be organised and conducted as far as possible by the staff themselves.

(v) *Mutual Improvement Classes.*—At up country stations where there are large railway colonies the possibility of developing mutual improvement classes might be examined. It is probable that the staff at such stations have more leisure on their hands than the staff at headquarters and could devote some of their spare time to learning more about their work.

(vi) *Institute of Transport.*—The Institute of Transport plays a useful part in Great Britain in developing a corporate spirit among transport men generally, and a live interest in all the problems of transport.

We think it is a pity that the Indian railway service shows on the whole so little interest in this organisation. Steps might well be taken to encourage increased membership, and at the same time to approach the Institute with a view to the formation of an Indian branch with local branches at important centres similar to those in South Africa.

Ultimately, the Institute might see their way to associate themselves as an examining authority with the advanced training courses which have been proposed in previous pages.

(*vii*) *Railway Research Service.*—The Railway Research Service in London is an organisation maintained by the British railways with contributions from railways in the Dominions and the Argentine. Its function is to collect, compare and circulate, in a monthly bulletin, information regarding up to date railway practice in all parts of the world. The Research Service also holds itself in readiness to give detailed information on any particular railway subject in answer to special enquiries. It has been found of great value to the British railways and to railways in the Dominions and elsewhere.

Not much seems to be known of this Research Service in India and very little use is made of it. The Railway Board and a few railways subscribe to, and receive copies of, the bulletin, but except for sporadic enquiries from officers on leave, no other use is made of the research organisation, nor does the Railway Board supply to the Research Service copies of any reports containing information as to Indian railway practice. We think this is to be regretted. We recommend that the Railway Board put themselves in touch with the Secretary of the Research Service to see what steps can be taken to increase the use made of the Service by Indian Railways.

Other means of arousing the interest of the railway staff in their work will no doubt occur to those who are more familiar with the conditions than we can claim to be. We consider, however, that it should be the responsibility of the Establishment Section of the Railway Board and of the Establishment Officer in each administration to keep in touch with all developments of this kind and to encourage them.

CHAPTER VIII.

Measures to increase revenue.

115. *Neglect of Commercial Department.*—We have so far considered the question of reducing expenditure. This, however, is not in any case the major problem in normal times when railway net revenues are under examination ; in the case of Indian railways it is even less so than on other national railway systems. As we see it the Indian railways are well organised for conducting railway transport with economy, and with operating efficiency ; but they are ill organised and ill equipped on what is known as the commercial side—that is, on the side of creating and developing traffic, of securing and maintaining friendly relations with the traders and trading bodies, and of cultivating good public relations generally. We regard this as a serious misfortune, and we hold that the first duty of the Indian railways at the present time is to take every measure possible to remedy this defect.

The misdirection of railway policy in this particular is not by any means wholly the fault of the railways themselves. It has been too much the habit of the financial authorities, and too much the weakness of political control, to regard the railways as purely a spending department, like public works or education. When bad times come, in departments of that character, expenditure may be pruned away with a ruthless hand ; so many lakhs or crores of rupees can be saved with almost mechanical efficiency. Progress may be arrested until better days return, but no other harm is done. It is not so with a railway system. The primary business of a railway is not to spend money nor even to save money but to earn it ; and as a means to earning money, it must be free to spend it.

In the pursuit of economy, as it appears to us, this principle has too often been forgotten. Expenditure has been cut out, or withheld, on objects which are essential to the proper development of business, and this has been particularly unfortunate at a time when a rival transport agency, free from all political and bureaucratic control, is springing into prominence in every part of India. It is important not to neglect the commercial department at any time ; it is doubly important at a time when every effort should be made to put the railways in the most effective posture for defending their revenues against the inroads of motor competition.

Our enquiries have made it clear that the railways themselves are fully conscious of this defect in their organisation. But they have suffered from a serious handicap, for they have not been allowed to make the appointments they would wish to make, or spend the money they would wish to spend on remedying the defect. 'Justification' is demanded, before the event, of expenditure whose justification can be inferred only after the event, and then on the most general grounds ; and the initiative which would force such expenditure through in confidence of the result is paralysed by fear of Audit criticism, and disapproval of the Legislature.

It may be admitted that there is also a shortage of men trained in the tradition of a live and energetic commercial department. In these circumstances, such men must perhaps be imported and active steps taken to train others to work under their guidance and ultimately to fill their places. Any steps of this kind have hitherto been far over the horizon of practical politics, when economy of expenditure, almost at the bayonet's point, has been the one watchword of the whole parliamentary and bureaucratic organisation.

116. *Remedial Measures Recommended.*—We place the need of giving a proper development of the commercial organisation first and foremost among the steps necessary to earn additional revenues. We are aware that this process has proceeded further on some railways than on others ; but in recommending the direction in which it should proceed we look rather at the general situation than at particular cases. We give below in some detail the lines which we think the development should follow :—

(*a*) *Status of Chief Commercial Manager.*—The Head of the Commercial Department should act directly under the Agent, and should have a status equal to that of the Operating Superintendent. On

British railways the Commercial Department is regarded as at least equal, if not superior, in status to the Operating Department. This appears to us to be sound policy ; for the financial interests at stake are greater, and a more mature judgment is required for dealing with the problems at issue.

(*b*) *Rates and Fares.*—The Rates and Fares section will naturally come under the Commercial Manager. The Head of the Rates and Fares section will be one of his principal assistants. We deal later with the responsibilities of this particular section (para. 132). At present we only feel called upon to say that this section, which has hitherto been looked upon as covering nearly all the responsibilities of the Commercial Manager, should in our opinion be regarded as ancillary to the more general section devoted to traffic development, trade enquiries and research.

(*c*) *Traffic Development.*—The Head of this section should be regarded as the outdoor assistant of the Commercial Manager. It will be his duty to direct the canvassing and advertising activities of the railway, to follow trade movements and generally to act as the intelligence officer of the Commercial Manager.

(*d*) *Research Branch.*—There should be organised under the outdoor assistant a special research branch for the purpose of conducting the enquiries instituted by him. It should consist of picked men showing more than the average activity and intelligence. They should be men who can be sent all over the system, and not least into the country districts, capable of speaking the vernacular, and of ascertaining the needs of outlying areas, whether as regards passenger or freight traffic. For the present, this research staff should be directly responsible to the head office. This will insure that they will be promptly responsive to head office initiative. Divisional and district officers have so far seldom been chosen for their commercial qualities, and might be apt to impair the Vigour of the drive, which it must be the Commercial Manager's business to institute and maintain.

(*e*) *Suggested Organisation on Divisions.*—On lines where the divisional system is established, we are disposed to suggest that the whole commercial organisation should be lifted out of the divisional scheme and organised at this stage on the departmental principle, with district officers reporting direct to the Commercial Manager.

(*f*) *Advertising and Publicity.*—The expenditure of Indian railways on advertisement is surprisingly small. We appreciate that the appeal of advertisement to the Indian public is different from its appeal to a British public. It seems to us probable however that this difference bears more on the character of the advertisement to be used than on the value and effectiveness of advertisement as such. Newspaper advertisement will evidently be less telling in India than in Great Britain, particularly if it is limited to the papers printed in English. Advertisements in the vernacular press will be more effective, and should be more extensively used. It is unfortunate, from this point of view, that the railways of India, as a department of Government, are debarred on political grounds from employing so many of the vernacular papers for advertising purposes. We would urge that, in the interests of business, the railways

should be exempted from this embargo, and allowed to advertise without restriction wherever on commercial grounds it may seem advantageous to do so. Such freedom might be beneficial in other ways : advertisement revenue is always valuable and has been known to sway policy.

But apart from newspapers there are other agencies such as the gramophone, the cinema and broadcasting (in the appropriate vernacular) which could be used more liberally than at present, particularly for the advertisement of passenger facilities and for the encouragement of passenger travel. We were informed by more than one administration that the tom-tom has been pressed into the service of the advertising department, and we could well believe that it was effective. In some parts of Scotland the bagpipes have been known to attract travellers. No instrumentality, however primitive its appeal, should be neglected.

We deal elsewhere with the Central Publicity Bureau (para. 70). That organisation seems to us to be efficiently run, and we recommend that it should be made the central force for a concerted drive to popularise railway travel all over India. There should be no difficulty in linking up its very real energies which that new development which is so essential in the Commercial Departments of the different railways. The money liberated from less fruitful activities could, if our recommendation were adopted, form a nucleus for what we believe would be a much more promising field of advertisement in the Indian towns and countryside.

We recommend that the Head of the Central Publicity Bureau be called upon to outline a plan for such a campaign, to be centrally directed, and to some extent centrally financed, but always with the closest possible co-operation of the individual administrations.

In Chapter XII 'Public Relations' we deal with a kindred subject—the steps to be taken to ensure closer contact and to improve the relations with the trading community and public bodies generally. We do no think it is necessary here to touch on that side of the publicity question.

(*g*) *Selectioin and Training of Staff.*—We have hinted in an earlier paragraph at the possibility of the best concerted scheme for the development of the Commercial Department coming to grief over a deficiency of suitable staff. The difficulty is a real one, though our knowledge of the material available does not enable us to pronounce on it with finality. It is certain, however, that special steps must be taken to select and train suitable commercial representatives. Consideration should be given to the desirability of careful recruitment in Great Britain at least for some of the higher posts. It does not appear to us that specialised Indian experience is essential ; indeed, for the proper development of the department it is in some respects a disadvantage.

117. *Justification of Extra Expenditure Involved.*—The above paragraphs represent in general outline the nature of the steps which we consider it desirable to take in order to place the Commercial Department in the position it should occupy for the proper development of railway revenues. We are unable to estimate the cost which will be involved, or the results which may be realised. It is evident however

that with gross revenues of upwards of Rs. 90 crores per annum, an increase of even 1 per cent. would cover the proposed expenditure many times over.

We do not, however, rely on such necessarily vague calculations. We recognise that the steps we have indicated will, in nearly all cases, involve additional expenditure and that the results must be a matter of speculation. Indeed, in the present position of road competition the results may not appear at all in the shape of increased revenue, but merely in the form of diminished losses ; nor will it be possible to have any assurance that the results could not have been attained without the expenditure here recommended.

But it is obvious that the expenditure at present incurred is inadequate, and the policy halfhearted, and we are satisfied that the developments recommended are essential. The sales department is the breath of life in every commercial undertaking. We see no reason to suppose that the development of such a department which has been found necessary and judged remunerative on other railway systems of the world will be less necessary or remunerative in India—indeed, it should prove more remunerative there, inasmuch as road transport is still undeveloped. While that condition lasts there is reasonable hope that the inroads into rail traffic, which have been experienced elsewhere, can be kept down to a minimum in India by the efforts of a well directed sales staff, and the adoption of timely measures of counter-competition.

118. *Further Suggestions for Increasing Revenue.*—In Chapter XI " Road Competition : Counter Measures " we deal with some of the specific measures to be taken to protect and extend railway revenues. We propose here to indicate certain ways in which, as it appears to us, additional revenue might be secured.

(*a*) *Industrial Sites.*—Several of the British railways have found it useful to appoint an " Industrial Agent " whose business it is to devote himself particularly to the attraction of new factories to the areas served by the railway he represents. With this object in view he keeps a detailed register of all industrial sites available, whether on railway-owned or on other land, together with particulars of water supply, power supply, and all other features likely to have a bearing for or against the choice of a location for particular industries. By advertisement in trade journals and in other ways he puts himself in touch with firms or agents who are contemplating the erection of new works or premises, and introduces them to the appropriate department of his railway for the negotiation of siding agreements, or the provision of other facilities. The expense involved is trifling, and the benefit often out of all proportion to the expense : on the least favourable showing the activities of the Industrial Agent are a material help to the trading community, and bring to the railway the credit of providing an efficient and valuable facility. The Indian railways probably have less need of an official of this kind than the British railways, but we are of opinion that an officer employed under the Commercial Manager might well be assigned duties of this character, as part of his responsibilities, with some title which will indicate the special importance attached to his functions.

(*b*) *Trade Advertising.*—Advertisement by posters, show cases, kiosks, etc., is less developed in India than in more advanced industrial countries. The revenues drawn by the railway administrations from the use of their stations and sites by trade advertisers are infinitesimal compared with the revenues earned in Great Britain. We do not see any reason why this should continue.

The use made of advertisements by the London Passenger Transport Board is evidence that a very large advertisement revenue is quite compatible with well kept and attractive stations, as well as with a clear display of station nameboards, timetables, and other essential information. English experience sufficiently demonstrates that well arranged advertisements add to the value of the spaces to let. We believe that it would pay the Indian railways to obtain first class technical advice on this subject and, after obtaining such advice, to embark on a carefully planned campaign for bringing the advantages and possibilities of railway station advertising before the trading and commercial communities in India. We think it will probably be found more satisfactory and congenial to Indian conditions to conduct the actual marketing of sites through agents paid on commission rather than through a special department of the railway organisation.

(*c*) *Catering.*—It appears that the catering at Indian stations is carried on principally by contractors. We find no fault with this system which, having regard to the variety of the catering required, appears to be on the whole the best system for the purpose. In many cases however, the right to use railway premises for catering is given rent free, or for a merely nominal licence fee. We can see no justification for this practice. It is argued that the provision of food for the third class traveller must be done so cheaply that it does not admit of the payment of any rent, and that any rent paid must be earned at the expense of higher charges or poorer quality in the food supplied. We do not believe there is any foundation for this contention. On the contrary we think that the reverse would be much nearer to the truth.

There are, it is true, cases where refreshments must be supplied, but where the custom is so limited that the barest profit is hardly attainable. These cases are the exceptions. At most stations good profits can be earned, and if the rent is nominal the profit will be all the larger, but there is no reason to expect that the food will be any the better. The contractor will want to make the highest profit he can, whether the rent be low or high ; his charges will be as dear and his quality as cheap as the vigilance of the railway administration will allow. One may even go further and say that if the contractor is making easy money he will be more likely to manage his business carelessly ; people seldom pay much attention to a franchise they buy too cheap. If, on the other hand, the railways earn a good rent, they will be the more vigilant to see that it is not imperilled by bad management. It is perhaps unnecessary to emphasise the wide field which is left open to jobbery and corruption if valuable franchises are given away for nominal sums.

We think it accords with business experience generally that the best way to secure good management in an ancillary undertaking of this kind is to charge a fair and reasonable rent for the facilities given, and

we recommend that Indian railways should adopt this principle in all their catering arrangements. Approved firms should be invited to tender, on the clear understanding that the railways will expect them to maintain low prices and a good standard of quality. Subject to this, the contract should then go to the highest bidder.

119. *Rates and Fares : General Increase.*—We have left to the last certain measures for increase of revenue which have naturally come up for discussion, or have found a place in the evidence laid before us.

It is natural that in any consideration of net revenue and the means of increasing it the question of an increase of rates and charges should occupy a prominent position. We have examined, first, the question of a general increase.

There are, as it appears to us, three conditions under which such an increase may be justifiable :—

(*a*) As an emergency measure, when sudden or unexpected changes imperil the financial position and stability of the railways.

(*b*) To meet a general change of costs and price levels, of a more or less permanent character, such as followed the Great War.

(*c*) To meet a temporary increase of costs in a period of general prosperity and high prices.

It does not appear to us to be possible to put forward either the first or the second of these conditions as justification for a general increase of charges at the present juncture. No upward movement of prices has taken place which could fairly be described as being of a general and permanent character. Nor can it be urged that present day conditions, when railway net revenues are rising, and the railways are once more earning the full interest on their capital, call for emergency measures.

The third condition still remains. There is evidence that Indian trade and agriculture have entered upon a less unfavourable period than has prevailed over recent years, but we saw no general indications of increasing costs so far as the railways were concerned. The prevailing condition of affairs during our visit to India did not appear to warrant a proposal for a general increase of charges, nor do we recommend it. On the other hand the trade position will no doubt change and may change for the better. Increased prosperity in trade and agriculture may bring a higher scale of costs on the railways, and lead, legitimately enough in our opinion, to a reconsideration of the level of railway charges.

120. *Rates and Fares : Particular Increases.*—Whilst trade conditions at the time of our visit to India did not appear to us to warrant a general increase of charges, it is evident on the other hand that present day trade conditions are precarious, and it is urgent that the Indian railways should build up what reserves they can against a period of depression. We have therefore turned our attention to proposals of a more partial character affecting particular commodities or descriptions of traffic. It is evident that even a partial increase should be such as will not fall with undue severity on any particular district or industry. It is

evident also that it should be such as will lead to the minimum loss of traffic, either by diversion or otherwise, so that the railway finances may reap the full benefit of the increase.

121. *Coal Rates.*—An increase of rates on higher class traffic would bring in little since it would merely divert a considerable volume of traffic to the roads ; an increase in lower class traffic would affect particular interests adversely, but this objection would not apply with equal force in the case of a traffic such as coal which is of almost universal use. Moreover, a small increase in the transport cost of coal would fall almost wholly on the general consumer, and thus spread the burden evenly over a wide field. Lastly, coal traffic is subject to road competition only to a very limited degree, and therefore the railway exchequer would lose little through diversion to other forms of transport.

We accordingly recommend that the surcharge on coal be increased from 12½ to 15 per cent., with a maximum increase of 1 rupee as at present.

We have also considered the case of shipment coal. Coal for export is at present receiving a rebate of 37½ per cent., and an additional rebate of 8 annas per ton. It is in effect being carried at a rate less than 50 per cent. of the rate payable by coal consumed inland. No figures are available to show whether the net rate charged is actually below cost but we are assured that any diminution, much more cancellation, of the rebate would lead to the total disappearance of the export trade in coal. We, therefore make no recommendation, though we have grave doubts of the general wisdom of so large a rebate, unless it is frankly regarded as a subsidy : if that is its true character, it appears to us unsound to make the subsidy at the expense of the railway exchequer.

Coastwise coal also receives a rebate of 37½ per cent., but it does not receive the additional rebate of 8 annas. Here too we doubt the wisdom of so heavy an allowance, but we recognise that it has been forced upon the railways by the need of competing with South African coal, particularly for bunkering purposes at ports in Southern India, and on the West Coast. We are assured that a reduction in the rebate would immediately be reflected in serious losses in the carriage of coal to those ports, and if no other alternative is available it would appear that there is justification for the continuance of the present rebates.

If an increased duty were imposed on South African coal, the rebate could be correspondingly reduced ; such a course would enable the state-owned railways to earn more revenue, whilst it would cost the Government nothing in other directions. The rebate is in effect a protective subsidy at the present time : it would be cheaper to give the protection in a more direct form, and charge a reasonable commercial rate for the carriage of the coastwise coal to the port of shipment. We make the suggestion with some hesitation having regard to policy considerations which are frequently involved in such fiscal adjustments.

122. *Adjustment of Individual Charges.*—In any commercial business individual increases of charges will be justifiable and desirable from time to time where charges made have been found lower than necessary, or where circumstances have changed. This is certainly the case with railways and does not prejudice the general stability of the railway rate system. We consider it desirable that the field of possible

rate increases should be constantly reviewed, that dead rates should be cut out, and that special rates should be adjusted where the circumstances that called for them have ceased to operate.

In general, we regard it as of the first importance that railway charges should be readily capable of adjustment either upwards or downwards. Any tendency to stereotype charges at any particular level or to hamper their reasonable increase or decrease, would be unfortunate both for the railways and for the trading interests of India. If special difficulties are imposed on the raising of charges, this must necessarily operate as a discouragement to their reduction and will tend to a rigidity of system which is contrary to the commercial interest of the community.

As a Committee we do not think it advisable for us to go into detail on the matter or to make individual recommendations other than those included in previous paragraphs ; nor do we think it possible to frame any estimate of the additional revenue which may be realised. The case is necessarily one for detailed examination of the charges made, and this responsibility should rest upon the Commercial Departments of the individual railways acting together as far as necessary.

123. *Rates and Fares : General Decrease.*—Several chambers of commerce have urged upon us the desirability of a general rate reduction as a means of stimulating traffic and thereby, of increasing revenues. We have considered the question but we cannot see our way to recommend any such policy. A general reduction of charges is never calculated to increase gross revenue, and net revenue still less. It can only be looked upon as desirable from the policy point of view either for the purpose of keeping railway charges in step with world-wide price movements, such as occurred after the post-war boom, or when railways have a large surplus in hand and are disposed to distribute it in the form of lower charges to their customers generally. Neither of these sets of circumstances exists at the present time.

We may add that, as already pointed out in Chapter II, the general level of railway charges in India is low and therefore provides no argument in favour of a general reduction. Apart from this it may be urged that individual railway rates are too high for the legitimate development of particular industries or trades. This may very well be the case. It is a matter for detailed investigation and argument, into which we have been unable to enter ; but it has no bearing on the claim for a general reduction of railway charges. There should be the fullest opportunity for the discussion of such matters with the commercial representatives of the railway administrations ; and, failing agreement, a clear road should be open for the submission of the application to the Railway Rates Advisory Committee. We believe this is the case in existing conditions and we see no occasion for special recommendations other than those included in paragraphs 121 and 122.

CHAPTER IX.

Rates and Charges.

124. We have dealt in Chapter VIII with the case for increasing railway net revenue by means of either a general increase or a general reduction of rates and fares, and we have explained why, in our opinion,

neither course would attain the object in view (paras. 119 and 123). We have also commented on the general policy which the railways should follow (paras. 120 to 122) and describe later the special steps which they should take to meet road competition (paras. 176 to 179 and para. 189).

Certain other matters relating to rates and charges for goods traffic have been put to us in evidence and it is desirable that we should comment on them. It will be well, however, to preface our remarks with a short description of the present system of charges.

125. *Goods Rates Structure.*—For purposes of charge, commodities are grouped into sixteen classes. The class in which a commodity is placed determines the maximum rate which may be charged for that commodity and the minimum rate which may not be infringed without the approval of the Railway Board.

The maximum rate increases step by step throughout the classification, ranging from 0.38 pie per maund per mile for the lowest class to 1.87 pies per maund per mile for the highest class. The maximum rates are :—

Class.—	Pie per Maund per Mile.	Class.	Pie per Maund per Mile.
1	0·38	4·B	0·72
2	0·42	5	0·77
2-A	0·46	6	0·83
2-B	0·50	6-A	0·89
2-C	0·54	7	0·96
3	0·58	8	1·04
4	0·62	9	1·25
4-A	0·67	10	1·87

Classes 2-A, 2-B, 2-C, 4-A, 4-B and 6-A were interpolated as the result of a revision of the classification on 1st May 1936.

The minimum rate for the five lowest classes is 0.10 pie per maund per mile and for the remaining eleven classes is 0.166 pie per maund per mile.

Within these maxima and minima railways have full powers to vary charges ; these powers are freely exercised, and about 80 per cent. of the revenue from goods traffic is obtained from rates below the authorised maxima.

No change in the classification of commodities may be made without the sanction of the Railway Board.

The rates charged for a commodity come within one or other of the three following categories :—

(*a*) *Class Rates, i.e.,* the maximum permissible.

(*b*) *Schedule Rates.*—These are based on a scale generally telescopic, and applicable in the majority of cases over the entire system of a railway administration.

(*c*) *Station to Station Rates.*—These are reduced rates quoted with regard to special commercial considerations when there is

reason to believe that the rate otherwise applicable is too high to enable the traffic to move, or to be retained to rail.

Terminal charges are added to class or schedule rates as an additional charge on account of terminal services performed or accommodation afforded. The quantum of terminal charges is determined by each railway administration. No terminal charge as such is added to station-to-station rates.

Coal rates are under the direct control of the Railway Board.

126. *Revision of Rates Structure.*—Much criticism was directed against the structure of Indian railway rates, and we have examined the subject with some care.

The primary functions of a rates structure are twofold. In the first place it should be comprehensive enough to deal appropriately with all classes of traffic that may arise ; and, secondly, it should be adaptable enough to admit of special quotations being given in special circumstances. In both these respects the Indian structure and practice seem to us to meet commercial needs. The class rates cover all descriptions of commodities ; and the power to quote special rates is wide enough for all reasonable requirements.

It has been represented to us however that, in detail, the system is cumbrous and illogical, and that it calls for drastic simplification.

The indictment, if we may judge from the evidence put before us, falls under two main heads :—

(1) The number and complexity of the class and schedule rates.

(2) The application of the " discontinuous " mileage system as between individual administrations.

127. *Class and Schedule Rates.*—Complaint was directed against the large number of class rates and the complexity of the schedules in force. It was suggested that a smaller number of classes would be more in accord with common sense and commercial requirements. On this general issue it appears to us that the complaint fails to justify itself. We see no commercial grounds for having a less number of classes than the diversity of commodities to be carried will justify. On the contrary we are of opinion that, having regard to the almost unlimited variety of commodities to be carried, the Indian Railway Classification contained, until recently, too few classes rather than too many.

This has evidently been the view of the railways themselves, since they have, as already indicated, within recent months added certain intermediate classes to the classification. (See para. 125.) They have also supplemented the classification proper by a considerable list of schedules, and we think they have been well advised in taking this action.

It is unfortunate that at this stage they have themselves given an opening for criticism. For whilst the classification is reasonably uniform for all railways, there are surprising variations in the application of the schedules. Cement for instance is carried by twelve Class I Indian railways on seven different schedules, so that the charge for 300 miles varies from 51 pies per maund to 114 pies per maund. Salt is carried on ten different schedules, and the same is true of grain and pulses.

These differences have grown up over a long period of years, when the relations between the different administrations were much less intimate than they are now, and each applied the schedules according to its own individual requirements and conditions. We think, nevertheless, that there is some ground for the allegation of complexity and the railways would be well advised to give due weight to it.

There are many circumstances which may justify the maintenance of different schedules for the same commodity, even on one railway system. Costs may be widely dissimilar on different sections owing to gradients or gauge ; while scarcity of traffic may warrant a higher schedule of rates, just as density of traffic may make a lower schedule remunerative. The demand for a uniform schedule for each commodity is unreasonable, and particularly so in a vast country like India where the conditions vary so remarkably between one district and another.

We are nevertheless under the impression that the diversity of schedules on the Indian railways cannot altogether be justified by considerations of this character. We believe that this is realised by the railways themselves, and that they are already to some extent pursuing the question of simplification. We would urge that the matter should be taken up more energetically, with the ultimate object of reducing the number of schedules applicable to each commodity concerned to the minimum which can be justified on definite commercial grounds. As long as the present situation lasts it will be a weakness in the railway position, and will tell against the railways in their endeavour to win the support of the trading public. It is in our view incumbent on the railways to work steadily in the direction of simplification and to lose no opportunity of establishing themselves in a more logical and defensible position.

The problem no doubt calls for the best experience of the rates experts of the different administrations if a satisfactory solution is to be found, but we would urge that the movement as a whole should receive its impulse from higher quarter, and that the Railway Board should give it their special attention and encouragement.

128. *The "Discontinuous" Mileage System.*—We should perhaps premise that this complaint arises in connection with tapering or "telescopic" scales, *i.e.*, scales where the mileage increment decreases with distance. It is in fact limited to certain of the schedule rates, since the class rates and some schedule rates are not telescopic, and station-to-station rates are lump sum quotations. An appreciable proportion of all goods traffic passes on schedule rates, and the range of traffic affected is, therefore considerable.

The present practice in the case of traffic passing over more than one system at schedule rates is to calculate the rate on the local distance over each system instead of on the through distance over all the systems. It follows that the rate for, say, 600 miles over two systems will be higher than the rate for 600 miles over one system, and where more systems are involved the difference may be considerable.

This practice may be regarded as the natural practice governing rates on traffic interchanged between independent railways. It was the rule in Great Britain prior to 1928, when the system of charges sanctioned by the Railways Act, 1921, came into operation, and has we believe been

the rule in India from the beginning. Nevertheless, as interchange of traffic develops it becomes difficult to justify the practice, at any rate on grounds of logic and theory.

It is argued that the mere fact of the transfer of traffic from one railway administration to another cannot justify the application of a method of calculating the rate which may double the charge to be borne and will certainly increase it substantially. It is difficult to resist the contention that, apart from break of gauge and transhipment, the natural and logical method of calculating the rate is upon the throughout distance, not upon a series of "discontinuous" distances.

Here too we think there is some ground for criticism of the rate system, and the criticism cannot be ignored. It applies most strongly in the case of exchange of traffic from one state-managed system to another, and will increase in force if more systems are transferred from private to state management.

The remedy is not easy to discover; indeed it is probable that at first sight the complexity of the problem is not fully appreciated. It is not a question merely of calculating the rate continuously for the throughout distance instead of discontinuously for the two or more sections on different systems: the schedules applied on the different systems are in many cases themselves different. In some degree, therefore, we are thrown back on the more general problem of simplification which we have considered in paragraph 127.

Leaving this aspect of the matter aside, however, the problem presents difficulties of its own. Where the aim in view is a simplification of schedules it may be possible without undue disturbance to select or to introduce a schedule which will fairly balance gains and losses; but in the case of "discontinuous" mileage no such compromise is practicable. The application of the "continuous" mileage principle, where the "discontinuous" principle is now applied, can only involve rate reductions: this course, therefore, would involve heavy losses to the railways, the extent of which cannot be computed, and there is no ground for supposing that there would be a countervailing increase of business to them. The losses might indeed be so heavy as to cripple railway finances, and we can see nothing in the circumstances to justify such a risk being taken.

The hardship involved in the present position is not of so urgent a character as to warrant desperate remedies. No practical cases were quoted to us. Such cases, where the circumstances are clear, can readily be met by the quotation of station-to-station rates, and we believe this solution is already being applied in a large number of cases. We recommend that this policy should be continued. The railways will do well to deal sympathetically with all cases of hardship that may come to their notice, in particular those where the "discontinuous" principle adds excessively to the amount of the through rate, and to meet such cases wherever possible by the quotation of station-to-station rates nearer to the figure of the through rate as calculated on the "continuous" principle.

We do not feel that at the present time any further recommendation is called for, or would be practicable.

129. *Risk Rates.*—It has been represented to us that there is an unjustifiably wide margin between owner's risk rates and railway risk rates and that a considerable proportion of traffic now carried at owner's risk would be carried at railway risk if suitable rates were in existence. It was alleged that the margin of difference is in many cases so great as to make railway risk rates prohibitive, and it was urged that railway risk rates should be quoted at a percentage above owner's risk rates calculated upon the actual risk incurred and the amount of claims payments which might be involved.

It may be well to consider the procedure adopted in quoting such rates.

In the General Classification each commodity is first shown in the class at which it is accepted at railway risk; and when railways are prepared to accept it at owner's risk it is also classified in a lower class, usually that immediately below. The difference between railway risk and owner's risk normally varies between 7 and 16 per cent. but in the higher classes it may be as much as 35 per cent.

Where a schedule rate is quoted this is generally at owner's risk; the corresponding railway risk rate is the class rate, and may be much higher than the owner's risk rate. Flour, for instance, is normally carried at a schedule rate, owner's risk. On the Great Indian Peninsula Railway the charge for 600 miles would be approximately Re. -|14|- per maund. If the sender wishes to forward the flour at railway risk he must pay the class rate which for the same distance is Rs. 1|6|- per maund, or 57 per cent. above the owner's risk level.

The position as regards station-to-station rates is the same. Where a trader can satisfy the railways that they will increase their revenues by quoting a station-to-station rate, this in nearly all cases is quoted at owner's risk with such other conditions as may be thought suitable to distinguish this traffic from traffic passing at the class or schedule rates. The extent of the reduction offered will vary according to the circumstances of the case, but the conditions, as to owner's risk, etc., are offered as a whole.

So far no complaint arises. If the reduction is excessive, that is regarded as a matter which concerns the railway alone. It is when the owner's risk condition has been brought into use that dissatisfaction begins to be expressed. The owner's risk rates are used as a matter of course, but when a trader finds that in individual cases they weigh hardly upon him, he enquires upon what terms the railway will take the risk, and is referred to the railway risk rate already existing. This, for the reasons already explained, may be considerably higher than the owner's risk rate—to such an extent, indeed, as to be prohibitive—and the trader therefore finds himself compelled to continue forwarding his traffic at owner's risk.

This, we believe, is a fair statement of the case as presented to us.

In Great Britain the situation has been met by imposing certain statutory obligations upon the railway companies. The Railways Act, 1921*, places a duty on the Railway Rates Tribunal to determine what

*Section 46.

reductions shall be made from the standard charges (corresponding broadly to class rates in India) where damageable merchandise is carried by railway under owner's risk conditions. The commodities to which this provision refers are indicated in the General Classification of Merchandise and the percentages have been determined by the Tribunal as varying between 2½ per cent. and 12½ per cent. according to susceptibility to damage.

It is further provided in the case of exceptional rates for the same damageable commodities (corresponding to station-to-station rates in India) that the railway companies shall, where an exceptional rate at railway company's risk is in operation, quote a corresponding rate at owner's risk, and *vice versa*. The difference between a railway company's risk rate and an owner's risk rate must fairly reflect the amount of risk involved.

In regard to class rates, it is clear that the Indian trader has an advantage over the British trader because of the higher percentage rebate allowed to him when he bears the risk himself. On the other hand, in regard to station-to-station rates, the British trader has an advantage over the Indian trader in that, where a rate carrying one set of conditions is in operation, he may demand a corresponding rate bearing the other set of conditions.

Looking at the matter as a whole we are of opinion that the Indian trader has some claim for consideration in this matter and that the railways could meet his wishes without serious sacrifice of revenue. We suggest that the Railway Board should examine the British practice, with a view to the voluntary adoption of a similar solution suited to the special conditions of India.

130. *Alleged Preferential Treatment of Import and Export Traffic.*—Several chambers of commerce complained that rates had not been adjusted to changed fiscal conditions and that they facilitate import and export traffic to the detriment of Indian industries.

This general complaint was illustrated by reference to the rates on cotton from the cotton growing districts to the ports and to Cawnpore respectively. The case is substantially the same as that which was considered by the Acworth Committee in 1920-21 and described in the report of that Committee as being "an Indian grievance of long standing". It was dealt with more recently in a special Note by the Railway Board to the Public Accounts Committee, printed as Appendix VII to the Report of the Public Accounts Committee on the Accounts of 1934-35 published on September 5th, 1936.

We do not think we can add anything to the comments of the Acworth Committee or to the arguments as set out in the Report of the Public Accounts Committee ; but we were impressed with the feeling of grievance that appeared to exist in regard to these rates. A grievance of this character in Great Britain would, failing satisfaction find its way, in natural course, to the Railway Rates Tribunal, where it would receive a thorough hearing and could be argued out in all its bearings. It is a pity that in India the Railway Rates Advisory Committee has not come to be regarded in the same light. Later in this chapter we make suggestions which are aimed at improving the procedure of

the Railway Rates Advisory Committee to enable it to deal more effectively with complaints as between the traders and the railways concerned, and we believe that the adoption of these suggestions will encourage traders to make more use of the Committee than they have done in the past.

131. *Rate Quotation by Individual Railways.*—Another complaint of a general character was to the effect that the railways disregard an "All-India" policy in their rate quotations. We could find no substantial evidence behind this allegation. The railways have, in our opinion, done a good deal to develop local collieries and other industries by the institution of cheap rates; and this policy has often enabled these industries to live in competition with more favourably circumstanced industries at a greater distance—but this policy seems to stand in no need of defence from the "All-India" point of view.

On the other hand we received no evidence calculated to show that the range of distribution of indigenous products was unduly restricted by the level of long distance rates; such rates seemed to us for the most part to be exceedingly low, and this is obviously a desirable feature in a country of long distances, such as India.

It may be that individual administrations tend in some instances to look too narrowly at their own interests. This is admittedly a danger of the present system; it is inevitable under private management, and even under state management the danger remains so long as the success of a particular administration is judged by the net revenue it earns.

We can suggest no general remedy which would not introduce worse defects. It is undesirable to centralise rate control more completely than at present. We consider, however, that the Railway Board should, through the Traffic Member, hold itself ready to deal with complaints of this character which arise from the divergent interests of individual administrations; and that the services of the Railway Rates Advisory Committee should be more freely called in by traders who feel themselves aggrieved.

132. *Quotation of Rates to the Public.*—We have examined the methods by which rates are calculated and quoted to the public.

Quotations are at present made partly by station staff and partly by the head office, and this duplication of duties applies to both local and foreign rates.

The quotation of local rates is comparatively simple. The calculations involved are well within the competence of the station staff and we see no occasion to modify the present system.

The calculation of foreign rates is, on the other hand, apt to be extremely complicated, and, as already indicated, we see no ready means of simplifying it. In our opinion the quotation of these rates makes undue demands both on the time and competence of the station staff. Experience shows that they are frequently at fault in the quotations made, and that the resultant errors cause irritation to the public as well as unnecessary correspondence to all parties.

We are of opinion that the quotation of foreign rates should be concentrated at the head office of each railway under the eye of the Chief Commercial Manager, and that the individual stations should be supplied with rate books after the fashion which is prevalent in Great Britain. These rate books should contain all the quotations which have been made for foreign rates, whether these are class rates, schedule rates or station-to-station rates. Additions to these rates should be notified from the head office to the stations concerned, and recorded in the station rate books in accordance with some recognised and regular procedure.

An experiment on these lines has been carried out on the North Western Railway and has been found to involve substantial benefit in reducing the number of erroneous quotations. The change should ultimately enable a saving to be made in station staff, but any such saving is dependent upon the general adoption of the system.

We are aware that the proposition has been receiving the careful attention of the Indian Railway Conference Association and that they have not seen their way to adopt it on account of the additional expense involved. It is in our view inevitable that some additional expense must be incurred in connection with the first compilation of the rate books. We believe, however, that this will be outweighed by the benefit obtained from the diminution of errors and the greater satisfaction to the public. When once the system has been established generally, we doubt whether there will be any additional current expense such as has been anticipated by the Railway Conference Association.

It may be urged that the change will lead to delay in the quotation of foreign rates. These can, it is argued, at present be calculated by a careful station clerk, and in many cases the quotation can be given on the day when the enquiry is received. In future such enquiries will need to be referred to the head office.

The possibility of such delay must be admitted. On the other hand most of the foreign quotations required will already be recorded in the station rate book and can be given by reference to the rate book with less delay than at present. Enquiries for new foreign rates, if urgent, could be passed forward by telephone or telegraph to the head office and the reply sent direct by post or telegraph to the trader making the enquiry. Special steps should be taken to organise prompt reference and quotation on these lines so that the public may get as prompt a service as they now receive and at the same time a more accurate one.

A request for a new station-to-station rate must at present be referred to the head office, and the change which we here recommend will not affect this procedure in any way. Such applications must in all cases receive careful consideration ; if they affect other railway administrations, the consent of those administrations must be obtained ; the effect on other rates must also be taken into consideration. For these reasons the trader must be prepared for some delay in the quotation of such rates, and where such delays are likely to arise the railways will be well advised to inform him of the probability.

133. *Railway Rates Advisory Committee.*—In hearing the complaints placed before us by chambers of commerce and other bodies, we have formed the impression that the trading community feel themselves burdened by a sense of helplessness in trying to obtain a fair hearing, and that almost as much importance attaches to this as to the substance of their complaints. This attitude of mind calls for sympathetic treatment, and we hope the situation will be improved by the closer contact which we have recommended between railways and traders. But over and above this it is desirable that an appropriate body should be in existence to which complaints in regard to rates and charges can be referred if direct negotiation between traders and the railway administrations fails to find a solution.

The existence of the Railway Rates Advisory Committee does not appear to be generally known. Those members of the trading public who know of it complain that its procedure is slow and that it is too much under the wing of the Railway Board.

Some chambers advocated its abolition and the appointment in its place of a body with mandatory powers like the Railway Rates Tribunal in Great Britain or the Inter-State Commerce Commission in the United States. Other chambers expressed the view that a body with advisory powers meets the purpose, but that the present Committee should be remodelled on the lines of the Tariff Board. Most of the sponsors of these proposals had not, as they freely professed, worked them out to a conclusion, and we interpret the evidence on this subject as a symptom of dissatisfaction with the existing machinery and of a desire to secure better means of redressing grievances.

Whilst we consider that the present arrangements can be, and ought to be, improved we do not favour the appointment of a body like the Railway Rates Tribunal or the Inter-State Commerce Commission, on the ground of the legal character necessarily assumed by the hearings before such a body and the cost involved to applicants. On the other hand, we do not see any special advantage in the suggestion that the existing Advisory Committee should be remodelled on the lines of the Tariff Board, which is itself an advisory body.

We consider that the requirements of the case will best be met by retaining the present constitution and jurisdiction of the Railway Rates Advisory Committee, but we think the procedure of the Committee should be made both more expeditious and more public. We accordingly make the following recommendations :—

(*a*) Less time should be occupied in preliminaries, and the procedure generally should be expedited. At present, for example, a railway is allowed two months in which to prepare an answer to an applicant. This might well be reduced to 21 days as in Great Britain, subject to the right to apply for further time in special circumstances.

(*b*) At present it rests with the Government to determine whether or not an application should be referred to the Advisory Committee for consideration. In our view the Government should accept an obligation to refer to the Advisory Committee any relevant application, unless in the opinion of

the Government the application is frivolous or vexatious. If the Government should refuse to refer an application to the Committee, they should give their reasons, in writing, for so doing.

(*c*) When the recommendation of the Committee is presented to the Government a copy should be delivered to the applicant.

(*d*) The eventual decision of the Government on the subject-matter of the application should be published.

CHAPTER X.

Co-ordination of Road and Rail Transport.

I.—Comments on Present Position.

134. We are required by our terms of reference to pay due regard to the question of establishing such effective co-ordination between road and rail transport as will safeguard the public investment in railways while providing adequate services by both means of transport.

135. *Development of Road Transport in India.*—Road transport has not developed to the same extent in India as in other countries of the world. The number of buses and lorries is small in relation to the size and population of the country and is bound to increase as the road system is improved and extended. We consider that the country should enjoy the advantage of this development and that no restrictions should be imposed which would unfairly hamper it.

136. *Chaotic conditions caused by Inadequacy of Regulation.*—It is undisputed that road services in India are at present carried on in unsatisfactory conditions. No reliable information is available as to the number of vehicles in use, the nature of the work which they do, or the districts or routes which they serve. The machines generally are in bad mechanical repair, and their operation is carried on in a haphazard manner, overcrowding of buses and overloading of lorries being the rule rather than the exception.

It is true that a few road services in India are conducted with a sense of public responsibility ; but it would be difficult to exaggerate the conditions of chaos in which the great bulk of commercial motor vehicle operation is conducted.

137. *Present Form of Regulation.*—The responsibility for the regulation of road transport rests mainly with the Provincial Governments. Yet the Provincial Governments themselves take different views as to the extent of their powers. The Government of the United Provinces obtained special powers in 1934 ; the others rely on the powers contained in the Motor Vehicles Act, 1914, and act on their own varying interpretations of those powers.

All Provincial Governments regulate road transport by licence, but they differ as to the status of the licensing authority, the charges levied, the conditions under which licences are issued, and the effectiveness of their endeavours to see that the conditions are observed.

Road development is also a responsibility of the Provincial Governments. None of them regards the existing road system as adequate. Their own funds, as a general rule, are sufficient only to cover maintenance of existing roads, and they look to the Central Government, for the most part, to contribute money for extensions. The Central Government provides these contributions out of the petrol duty. As providing the money, it claims to control the type of road upon which the money shall be spent and is accused of exercising this control in the interest of the railways. This is a source of friction between the Central and Provincial Governments. In the meantime even the maintenance of existing roads, which is divided between the Provincial Governments and Local Boards, is proving to be a heavy burden on Provincial and Local Finances. It will become heavier as the mileage of the road system is extended.

138. *Adequate Regulation of Transport Essential in Public Interest.*—It is against this background that we have to consider the co-ordination of road and rail transport. We are bound to say that in existing conditions co-ordination is an unattainable ideal. The policy hitherto followed by the Provincial Governments encourages an unorganised and inefficient type of road transport whose competition will cripple the railways without providing a trustworthy service on the roads ; whilst on the other hand the control exercised by the Central Government can only be made effective by delaying or restricting the provision of an adequate road system, which is a public need of the first order, quite irrespective of the railways. In this way, a continuance of the present policy seems certain to give India the worst of both worlds—unprosperous railways and inadequate roads.

We consider it essential that the situation should be taken in hand without delay ; and in our view the first necessity is an adequate system of regulation of road traffic. It is useless to try to bring about effective co-ordination until road and rail transport are both operated as public services, and under regulations appropriate to a public service. We propose, therefore, to begin by examining the form of regulation which is desirable in the public interest for rail and road transport respectively.

II.—Railway Regulation.

139. *Existing Regulation Suitable.*—The railways of India, like these of all other countries, are subject to statutory regulation, not only in the interest of safety but in order to ensure their proper conduct as a public service. This system of regulation was imposed at a time when they enjoyed quasi-monopolistic conditions, and in our opinion it has produced the desired object without unduly tying the hands of railway administrations. We consider that it is still suitable and do not recommend that it should be altered or relaxed.

III.—Road Transport Regulation.

140. *General Objects of Regulation.*—It is sometimes claimed by critics of the railways that regulation of road transport is advocated merely for the sake of protecting the railways and, as the case is put, " bolstering up an obsolete system of transport ". This proposition does not bear examination, for all experience shows that proper regulation of road transport is necessary not only in the interest of safety but also to guide its own

development along sound and economic lines ; this would be so even if railways did not exist.

We have said that India ought to enjoy the advantage of the development of road transport and that no restriction should be imposed which would unfairly hamper it. On the contrary it should be encouraged to make the fullest contribution to the general economic welfare. What should be the nature and the extent of that contribution ? Road transport cannot supersede the existing transport agencies ; what part ought it, as a newcomer on the stage, to play ?

It is rightly claimed for road transport that it is flexible and that, wherever suitable roads exist, it gives convenient service from door to door. These inherent qualities make it particularly suitable for the development, step by step with the development of the highway system, of the large tracts of India which have not yet been provided with public transport facilities. In these directions there is adequate scope for the growth of motor transport for many years to come ; and there is no other way in which the new form of transport can so effectively confer its special advantages on the community. In India, no less than in other countries, the omnibus can do much to transform life in the villages by bringing them into direct contact with the neighbouring towns and the railways. The goods lorry, too, will render invaluable service, particularly to the agricultural community, in opening up new markets either by direct delivery where they are near at hand or by conveyance to a convenient railhead where they are more remote. It is along these lines that the authorities can most profitably direct a policy of road improvement and construction, and the establishment of public road transport services which will follow that development.

This objective can be reached only by conscious direction through the medium of regulation.

141. *Machinery of Regulation.*—The Central Government and the Provincial Governments are jointly concerned with the regulation of road transport, and it is not surprising that some difference of opinion should exist as to the extent to which the responsibility should rest on the Centre and on the Provinces respectively.

The Central Government is responsible for the conduct of the system of state-owned railways in which nearly Rs. 80 crores of taxpayers' money is at stake. It is natural, therefore, that the Central Government should be concerned to preserve not only an enormous investment but an essential public service against unfair and uneconomic inroads by a new competitor. It is arguable in principle that, seeing that regulation of the railways rests with the Central Government, regulation of road transport should do so as well.

On the other hand, the construction and maintenance of roads are responsibilities of the Provinces and it is an easy transition to suggest that the control of traffic on those roads should be in the same hands. This consideration is in our view important ; but it is at least of equal importance that the police are a Provincial responsibility and that the administration of any system of road transport regulation must be enforced through them.

We feel in this matter that the administration of regulation should properly be vested in the hands of Provincial Governments, but that it should be prescribed and carried out in accordance with uniform principles enacted at the Centre.

142. *Regulation common to Passenger and Goods Road Transport.*—Regulation is at present carried out through a system of licences or road service permits, and this seems to us to be the appropriate method.

The first consideration should be regulation in the interests of safety, applicable alike to buses and lorries, and should cover the following conditions :—

(a) *Fitness of Vehicle.*—There should be periodical inspection of vehicles and provision should be made for suspending the use of a vehicle found to be defective.

(b) *Overcrowding and Overloading.*—The number of standing passengers to be permitted should be specified, and the number so specified should be exhibited clearly both on the outside and in the inside of the vehicle.

We consider that overloading of lorries can best be prevented by prescribing the maximum laden weight, and the weight so prescribed should be exhibited clearly on the outside of the vehicle.

(c) *Speed Limits.*—Speed limits are notoriously difficult to enforce and we suggest that the fullest consideration should be given to the desirability of requiring all buses and lorries to be fitted with mechanical governors so as to ensure their keeping within the prescribed limits.

(d) *Hours of Duty.*—It is important, in the interest of public safety, that the hours during which a person may drive a bus or lorry should be restricted, and this restriction should apply to the owner-driver as much as to the employed driver.

(e) *Fitness of Driver.*—This includes both physical fitness and ability to drive a vehicle of the description intended. A system of driving tests should be set up with this object in view.

Infringement of the foregoing conditions should render a licence-holder liable to have his licence suspended or revoked, according to the seriousness of the offence.

143. *Regulation in accordance with Public Need.*—We consider that safety regulation on these lines is essential, but it is not sufficient in itself. Experience in Great Britain and South Africa, of which we have first-hand knowledge, and evidence from all other countries in which the road transport problem has arisen, show that reliable and satisfactory road transport services can be built up only when the supply of transport is regulated in accordance with the demand. Neglect of this principle results in excessive provision and maldistribution of road transport facilities.

Excess means waste, and waste has to be paid for by the body of transport users as a whole. India in its present stage of economic deve-

lopment can ill-afford to bear an unnecessary burden of this kind. Maldistribution is apparent in the redundancy of facilities provided on certain routes linking large centres of population and in the neglect of more sparsely populated districts.

We therefore recommend that the number of vehicles should be regulated according to public need with the twofold object of preventing wasteful competition and ensuring that new facilities are provided wherever they can be economically developed.

144. *Special Regulation of Passenger Road Transport.*—Passenger services should be regulated by a system of route licensing, and time-tables on each route should be fixed. By no other system is it possible to secure a proper distribution of passenger road services. A regional system of licensing, such as was advocated in some quarters, would perpetuate the concentration of buses on the more populous routes and discourage attempts to establish services on the less populous, and presumably less profitable, routes.

Fares should also be fixed, not in relation to maximum or minimum limits, but absolutely. This is necessary in order to prevent unfair and uneconomic competition where, as may frequently happen, two or more operators are serving the same route.

Subject to the foregoing conditions a licence should be granted where public need or convenience is shown, and regard should be paid to the adequacy and convenience of existing transport services, including transport by rail. The licensing authority, in deciding whether a licence should be granted or refused, should take into consideration representations made by persons already providing alternative transport facilities in the district concerned ; but this should not preclude the provision of road services parallel to the railways in cases, for instance, where the road service will be quicker, more intensive, or more convenient than the rail service.

145. *Special Regulation of Public Goods Road Transport.*—The position of freight road services is different. The case for such services on grounds of public need or public convenience is as a rule much weaker, except where feeder services are concerned ; and in our view a more stringent system of licensing is appropriate.

We do not advocate a system of route licensing as in the case of passenger vehicles. In our opinion such a system would not be flexible enough for a freight road service. We favour rather a system of regional licensing, and we recommend that permits should be granted to operate within the area of a District Magistrate's jurisdiction. Freedom of operation within a district will generally enable services to be established which will form links with the trunk traffic routes, whether by rail or by water. We do not contemplate, however, that freight road transport should be rigidly confined to the limits of a District Magistrate's area. Such a limitation would be unjustifiable and contrary to the public interest, and permits to penetrate adjoining districts should be issued where no suitable alternative facility is available.

It is desirable in principle that rates for the transport of goods by road should be subject to regulation. This, however, is admittedly a difficult problem and has not been solved even in Great Britain, where

the regulation of road transport has proceeded much farther than it has in India. We believe that, in the conditions which exist in India to-day, it will be wise to postpone the regulation of rates until the general measures of regulation recommended in this Report have enabled the goods road haulage industry to organise itself and attain reasonable stability. Provision for regulation of rates should, however, be included in any legislation which is enacted, and this should be capable of being brought into force when the circumstances are judged to be favourable.

Apart from the general conditions already mentioned, we recommend that the licensing authority should have power to attach to goods road service licences either or both of the following conditions :—

(*a*) that certain classes or descriptions of goods only shall be carried ;

(*b*) that the vehicle may not be used on specified routes ;

and that he should exercise these powers in such a way as to prevent wasteful competition.

Subject to the foregoing conditions a licence should be granted where public need is shown and, in determining public need, regard should be paid to the adequacy of existing transport services, including transport by rail. The licensing authority, in deciding whether a licence should be granted or refused, should take into consideration representations made by persons already providing alternative transport facilities in the district concerned.

146. *Regulation of Private Lorries.*—We have carefully considered whether this system of regulation (other than rate regulation) should be applied to private as well as public lorries and we recommend that it should be so applied. It has been represented to us that private lorries should enjoy more freedom than public lorries on the ground that any restriction would involve interference with private business. We do not accept that contention. The regulation which we recommend for the public lorry aims at building up a co-ordinated system of transport in which each agency will be the complement of the other, and which will afford the best possible service under conditions of stability. Every trader recognises the importance of stable conditions of transport both in regard to service and in regard to rates. It is of far greater importance in the general public interest that that stability should be preserved than that individual traders should secure the narrow and isolated advantages which would alone be derived from the indiscriminate use of private lorries.

147. *Licensing of Existing Vehicles.*—In order to avoid the possibility of hardship to existing operators we consider that all vehicles, whether passenger or goods, in use on the date of our Report should be licensed without regard to the test of public need ; in other respects they should be made subject to the conditions of regulation already recommended. In cases where the number of vehicles is now excessive the situation should be met by a redistribution of vehicles or, where that is not practicable, should be allowed to correct itself by the normal process of attrition.

148. *Legislation necessary.*—We now come to consider the form of legislation necessary to give effect to the system of regulation described in the foregoing paragraphs.

Except in the United Provinces where special powers were taken in 1934, the law relating to the control and regulation of road traffic is inadequate and out of date. New legislation is urgently needed.

We have examined the Motor Vehicles Amendment Bill which has been before the Legislature. It is purely of an enabling character. It would be preferable in our opinion, that a mandatory Act should be passed laying down the principles upon which the regulation of road transport should be carried out. Should, however, this involve serious delay or difficulty, we strongly recommend that the Amendment Bill should be passed as quickly as possible.

149. *Inadequacy of Police Control.*—As has already been indicated, the conditions which exist in India make it a matter of extreme difficulty to ensure adequate police enforcement of the Provincial rules. Far more is necessary in this direction if road transport is ever to rise, as it should, to the responsibilities of a public service.

We have referred to the inadequate knowledge of what is going on in certain Provinces. We consider that, where this has not already been done, Provincial Governments should without delay take careful stock of the existing situation. In the few Provinces where any investigation of the conditions has been undertaken, there were found to be prevalent such abuses as can be checked and prevented only by a thorough tightening up of police supervision.

It has been objected that adequate control is expensive. We cannot regard this as a valid objection. It is proper that road transport should bear the cost of its own regulation, and this can be done by an increase in the registration, or licence, fees or in the Provincial taxes levied on motor vehicles. The remedy therefore would appear to be in the hands of the Provincial Governments themselves. We understand that, since we began our enquiry, Provincial Governments have been empowered to use the proceeds of the petrol duty to meet charges, including the cost of establishment, connected with the control of motor transport.

150. *Inadequacy of data relating to Road Transport.*—In the Mitchell-Kirkness Report of 1933 emphasis was laid on the difficulties experienced during the investigation owing to the lack of reliable statistics relating to traffic on the roads. Our experience, four years later, has been similar.

We strongly urge that Provincial Governments should review their system of records so as to ensure that adequate statistics are kept of the number of vehicles and other matters relating to road traffic in their Province.

IV.—Taxation of Motor Vehicles.

151. *Lack of Uniformity.*—There are very wide differences in the rates of licence fees, provincial taxes and other duties levied on motor vehicles. In the case of a 30 cwt. lorry the variation is as much as from Rs. 125 in one Province to Rs. 800 in another. We see no reason why such wide differences should continue and we recommend that a movement should be made towards equalisation. The concern of the Provincial Governments will quite properly be to obtain the maximum revenue from these sources, but we consider that the contributions by motor vehicles

should be fixed at a level which shows due regard for the proportionate cost of providing, maintaining and policing the roads.

152. *Taxation of Private Lorries.*—In the case of private lorries the difference in the scales is even more marked. In certain Provinces they are on the same footing as public lorries. In other Provinces they are charged substantially less, whilst in some cases a nominal fee only is charged. This distinction is, in our view, without warrant. It has been represented to us that a private lorry should pay less than a public lorry because it is not used for making profit. In this matter, however, we are unable to draw any distinction between the direct profit made from the carriage of goods for hire and the indirect profit which is the only commercial motive for the use of a private lorry. We therefore recommend that in this matter private lorries should be placed on the same footing as public lorries.

153. *Basis of Taxation of Lorries.*—The usual basis of taxation of lorries is unladen weight. In at least one Province it is loading capacity. We are of the opinion that the most equitable basis is maximum laden weight, and we recommend that this be adopted in any revision that is carried out. This basis would be consistent with that which we recommend in connection with the overloading of lorries [paragraph 142 (*b*)].

154. *Fuel Oil used for Road Traction.*—There has so far been little utilisation in India of the diesel motor vehicle. In order to correct the preference which it enjoys over the petrol vehicle and to prevent uneconomic development we recommend that, as regards duty on fuel, the diesel vehicle be placed on a footing corresponding to that of the petrol vehicle.

155. *Taxation of Trailers.*—We consider that Provincial Governments should ensure that taxation levied in respect of trailers should be adequate, having regard to the use they make of the roads. We suggest that an appropriate level of taxation would be at one-half the rate of a motor vehicle of equivalent maximum laden weight.

In this part of our report we have, as a matter of convenience, used the word "taxation" loosely in the sense in which it has come to be commonly applied to the payments made in respect of motor vehicles. In the strict sense of the word these payments are not taxes but payments for services rendered in the form of providing, maintaining and regulating the roads. Only excess payments made after the cost of those services has been met are of the nature of true taxation.

V.—Road Construction.

156. *Responsibility.*—The maintenance, improvement and construction of roads are responsibilities of the Provincial Governments. The Central Government is, however, interested in two ways. It provides the Provinces with part of the yield of the petrol duty for the construction of new roads; and, more important, it seeks to have a voice in Provincial policies of road construction because of the effect which those policies might have, through the development of competitive road services, on the financial position of the state-owned railways. There is a divergence of interest here which has caused some lack of harmony. This has been unfortunate but need not be permanent, and we cannot help feeling that

a better appreciation on both sides of the transport problem would go a long way towards removing the present difficulties. An efficient railway system is essential for India as a whole and for every Province which constitutes a part of it. At the same time a comprehensive Provincial road policy is bound to make for the economic development of the Provinces and consequently of India as a whole. In a long view the interests of the Central Government and the Provincial Governments in this matter are less divergent than the present situation seems to suggest.

157. *Contact between Provincial Governments and Railways.*—Under present arrangements the Provincial Governments consult railways on questions of road construction through the medium of Road Boards or Boards of Communication. On these Boards the railways are represented by the Agents concerned, who are called upon to express their approval or their disapproval of each road proposal put before them. In our view the Agents are thereby placed in an unfair position. If a new road is likely to diminish the traffic on his railway, an Agent has no option but to withhold approval, however, great may be its advantages from a non-railway point of view. We think it is proper that the Provincial Government should call the Agent into consultation on these matters, but that his responsibility should be limited to placing before the Provincial Government, and the Railway Board, an estimate of the loss of railway traffic which would be involved if the scheme were adopted. The proposal under dispute would then fall to be adjudicated between the Central and Provincial Governments with a full knowledge of the arguments for and against its adoption.

158. *Future Road Construction.*—We have already drawn attention to the insufficiency of the funds at the disposal of Provincial Governments for carrying out schemes of road construction. The period required for completing any comprehensive programme has been put to us in some cases as exceeding twenty years.

We are convinced that the relations between the Provincial Governments and the railways would be much improved if the Provinces were to work out long-term programmes of road construction and settle, in consultation with the Central Government, the order of priority in which the works should be undertaken.

This should be rendered all the easier if our recommendations concerning the regulation of road transport are adopted. In the existing conditions of road traffic much of the railway objection to proposals for new road construction is in our view legitimate; the railways are bound to protest against any new road facility which will lead to an extension of uneconomic and unregulated competition. If, however, proper regulation is imposed the main ground of the railway objection will be removed, and we contemplate that Provincial Governments will then find much greater freedom than they have hitherto enjoyed in carrying out their projects.

VI.—Railway Participation in Road Transport.

159. *Powers needed by Railways in Interests of Co-ordination.*—We consider it of the first importance that the railways shall have full powers to run road services for the conveyance of passengers and freight traffic, subject to the same licensing and operating conditions as apply to every

other person providing road services for hire. These powers should enable the railways :

(a) to run road services themselves ;

(b) to hold a financial interest in undertakings providing passenger or freight services for hire, and to enter into working agreements with such undertakings with the object of co-ordinating rail and road transport facilities ; and

(c) to make agreements with contractors for the running of road services whether on a profit-sharing, charter-hire or other basis.

We are advised that all railways do not possess these powers and will not possess them when Part VIII of the Government of India Act, 1935, is brought into operation. We recommend that measures be taken, whether by legislation or otherwise, to confer on all railways the powers enumerated.

The British railways obtained powers of this character in 1928, and it was not until these powers had been obtained that any serious start could be made in the work of co-ordination between road and rail. As regards passenger services a very large measure of co-ordination has already been reached in Great Britain. It is not too much to claim that this could never have been achieved if the British railways had not been given full liberty to take whatever share in road services the circumstances might seem to render suitable.

In South Africa also the Government railways have full liberty to conduct road services of their own or to make arrangements with road service companies. A very high degree of co-ordination has been reached as between road and rail, and could have been reached in no other way.

160. *Present Railway Powers and Policy.*—Broadly, the Indian railways have made no attempt to use the partial powers which they now possess. It has been felt that in the present chaotic conditions of road transport, whether passenger or freight, no concern which attempted to carry on a service on sound economic lines could hope to make a profit, or indeed emerge without serious loss. Present-day omnibus fares are undoubtedly below a proper economic level. The buses are in bad physical condition and frequently overloaded. They are largely driven by their owner, or by his family, under conditions as to hours and wages which defy competition. There is an excess of buses on the most remunerative routes, and it may be taken for granted that a railway-owned bus service would be the target for the most intensive competition on the part of the existing omnibus owners.

We accept this view. It seems to us evident that no responsible firm of omnibus owners could carry on at a profit under existing conditions outside the main centres of population. This would be especially the case with the railways, whose standards as to maintenance of vehicles and as to wages and conditions of service of staff must be exceptionally high.

None the less, we think it regrettable that railways have not embarked upon road services and faced the losses involved, regarding them

as the price to be paid in order to gain their footing in a new and important branch of the transport service. Our reasons for this view are :—

(*a*) A resolute attempt by the railways to provide a good and efficient omnibus service would have done something to earn them the goodwill from the lack of which they suffer so much at present in any attempt to make good their position against road transport. They would at the same time have established a claim for consideration as road carriers by the mere fact that they were on the roads and endeavouring to provide a respectable service.

(*b*) The existence of an efficient and economical road service run by the railways would have made more evident the deplorable character of the service provided by others and would have strengthened the demand for some measure of regulation in order to bring other services up to the railway level.

(*c*) The annual loss to the railways would in our opinion have been trifling compared to the loss which has been incurred by the diversion of traffic to the roads, and would probably have been more than counterbalanced by the effect which the railway services would have had in discouraging the establishment of outside competition.

We hold this view the more strongly having in mind the experience of the South African railways in this matter. These railways provided services when they had no exclusive powers or preference as against outside competition. Their services were frequently run at a loss, but they made it their business to share the work with outside competitors and to create a good understanding with them. When the time came for the institution of a proper system of regulation, the railways had shown that they were well disposed to road transport and capable of providing it on economic terms in co-operation with other road transport interests. In these conditions the railways were able to secure a strong position as participants in the road transport industry, and it can be claimed that a more complete measure of co-ordination between road and rail has been achieved in South Africa than in any other country in the world.

161. *Railway Policy Recommended—Passenger Road Services.*—Valuable time has been lost but even now it is not too late for railways to enter the road transport business. There are as yet few reliable services run by responsible concerns in British India, and there must still be scope for the Indian railways to follow the example of the railways in South Africa by embarking on road services of their own. Where services have already been established on a sound basis an alternative course would be open to them : they could adopt the policy of the British railways and take a financial interest in independent omnibus companies, entering into working agreements with them with the object of co-ordinating rail and road services.

We emphasise, however, that the matter does not admit of delay. All railway administrations should immediately examine the possibilities of engaging in passenger road services in their respective areas, and

should submit definite proposals to the Provincial Governments concerned. In seeking to justify the capital expenditure it will be impossible to support such proposals by any precise forecast of the financial result ; indeed, it is likely that many projects will at the outset result in loss and will continue to do so until a licensing system has been fully established. We repeat that it is worth incurring this loss in return for the general benefits, both immediate and prospective, which the policy will confer.

No special plea is needed to justify the railways in engaging in feeder bus services to and from their stations. Such services will bring increased revenue to the railways by tapping new sources of traffic and will afford valuable amenities along the lines on which road services can most profitably be developed in the public interest.

The proposals of the railways need not, however, stop short at feeder services, for we see no reason why railways should not also participate in the running of road services parallel to their own lines. It may be argued that by doing so a railway is entering into competition with itself, but this argument need not be regarded as conclusive. In the first place a parallel service is not wholly competitive ; it has as a rule some contributory value to the railway. Moreover railways, like all other commercial concerns, have always provided alternative services of different qualities and at different prices. A public demand has arisen for a new form of transport which competes with the old forms. This is merely a special case of what is constantly occurring in the commercial world where, for instance, the progress of invention enables a new type of commodity to be produced in competition with older types. In such a case a prudent salesman will lay his plans to offer the new commodity side by side with the old and to sell them in competition with one another. The railways need not hesitate to follow a similar course.

A special case for railway participation in parallel road services arises in connection with narrow gauge lines which may be rendered unremunerative by road competition. Some of the administrations owning such lines have, we understand, for many years past unsuccessfully pressed for powers to run road services. Assuming that, as we recommend, the requisite powers are granted we think railway administrations might be well advised to effect a gradual transfer of their passenger traffic to the road. This would enable them to carry out economies in the maintenance and staffing of the railway, which need only be kept open for freight traffic. The staff displaced on the railway could largely be absorbed in the road business.

162. *Railway Policy Recommended—Freight Road Services.*—It will obviously be useful for the railways to develop and encourage non-competitive road services for the conveyance of goods. Lorry services operating from railheads will afford valuable facilities to the trading and the agricultural communities, and will bring additional revenue to the railways.

We would also stress the special need of developing collection and delivery services and of establishing goods collecting stations in the heart of large cities. Both of these points are dealt with at greater length in our next chapter.

In our opinion there is little, if any, advantage to a railway in providing parallel freight services on the road. Such services convey no general advantage and establish no goodwill. If provided by a railway they are just as wasteful and injurious to public interest as if provided by an independent operator.

163. *Nature of Railway Participation in Road Services.*—In recommending that railways should participate in road services we have pointed to two alternative methods which have been adopted in South Africa and in Great Britain, respectively.

In South Africa the railways, unhandicapped by lack of powers, were early in the field with road transport services operated under their own management, and when the licensing system was set up were able to maintain and extend the position which they had established.

The situation in Great Britain was different. By the time the railway companies obtained road powers in 1928 the omnibus industry had reached an advanced stage of organisation and was being concentrated in the hands of a relatively small number of large companies, many of which were under common financial control. Omnibus operation was still unregulated, and any attempt by the railways to establish themselves on the roads would have added to the chaotic conditions then existing. The railway companies therefore adopted the policy of acquiring a financial interest in those omnibus undertakings and entering into working agreements with them with the object of co-ordinating rail and road facilities. At the present time the British railways have an investment of approximately £10,000,000 in passenger road transport and have working agreements with practically every large omnibus undertaking in the country outside the London Passenger Transport area, where special arrangements are in force.

These two divergent policies were obviously dictated by different circumstances. The conditions which exist in India do not suggest that one of them should be adopted to the exclusion of the other. Much must depend upon the extent to which road services have already developed in particular localities and upon the scope which still exists for providing new facilities. The question of policy is, we consider, one for decision by the Railway Board in consultation with the individual administrations. We urge that no time should be lost in reaching a decision.

While we regard these two alternatives as applicable to passenger transport we consider that in regard to freight transport the most satisfactory policy is for the railways to arrange for the provision of services through contractors. Such arrangements bring no direct profit to the railways except in the form of contributory revenue. They provide, however, improved facilities and amenities to the public.

VII.—Future Development.

164. *Co-operation between Transport Agencies.*—We have described the two conditions which are in our view essential antecedents to any attempt to co-ordinate rail and road transport, namely, that a proper system of regulation of road transport should be set up and that the railways should be given powers to engage in road transport on an equal footing

with other operators. Given these two conditions, we believe that a co-ordinated system of transport can be built up under the direction of the licensing authorities and of the transport industry itself. In cases where the railways provide their own road services or arrange for the provision of services by contractors it will naturally be their business to see that these services are co-ordinated with railway facilities. In other cases, where the railways have only a partial interest in road transport, we would emphasise the importance of voluntary co-operation between them and the more responsible elements in the road transport industry. In this matter the railways are well fitted to give a lead by virtue of their resources and their standing as a public service. The object should be to set up joint machinery for co-ordinating rail and road facilities in all cases where the railways do not control road services running in competition with rail.

165. *Responsibility of Licensing Authorities.*—Voluntary machinery of co-operation should prove invaluable to the licensing authorities in the discharge of the duties which will fall upon them under the Provincial rules, and in the application of those rules to the needs of their particular district. We have already indicated the general lines which we think the development of road transport should follow (para. 140) and the criteria which should be applied in deciding whether a licence should be granted or refused (paras. 144 to 146). Upon the manner in which the licensing authorities discharge their responsibilities the co-ordination of rail and road transport will ultimately depend.

The omnibus has already made much more headway in India than the motor lorry. It seems to us that that development is natural and that there is, in fact, greater economic scope for bus than for lorry services. It is because of this conviction that we recommended " public need " as a criterion for the grant of a lorry licence, and " public need or convenience " as a criterion for the grant of a bus licence. For the same reason we consider that lorry services parallel to and in competition with the railway should not be licensed, unless the service afforded by the railway is shown to be unsuitable ; and in deciding suitability the question of charge should not arise. A motor lorry service might well be able to undercut the railway rate for a specific traffic between specific points ; none the less, its existence would, in our view, result in wasteful competition. It would confer no general advantage and its effect, if it were multiplied many times over, would be to destroy the stability of the transport system as a whole and, by impairing the earning power of the railways, to throw a burden on the shoulders of the taxpayer for the benefit of the few. This is just as true of private as it is of public lorries.

The omnibus has a wider field of usefulness. The convenience which it affords has a social as well as an economic value. We have pictured it as linking village with town and with railway station ; we have also contemplated parallel services with the railway, partly competitive and partly contributory in character. Where the railway gives an infrequent service of passenger trains, a complementary service of buses to fill in the gaps in the railway time table, in response to public demand, would be a convenience clearly justifiable in the general interest. For short distance travel, especially in the neighbourhood of large cities, the bus has in some circumstances a distinctly better service to offer than the railway. We do

not think the public should be denied the benefits which such services afford. In so far as there will be competition with rail, it will be a stimulus to the railway administration so to improve its facilities as to retain as much traffic as it can ; and under an adequate system of regulation the competition will no longer be wasteful and uneconomic.

We have set out these general considerations and these illustrations with the intention that they should afford some guidance to the authorities in whose hands the administration of the licensing system will rest. We would urge once more in conclusion that India is not a wealthy country ; it cannot, therefore, afford the luxury which would be involved in the provision of unnecessary transport facilities. Even convenience may be bought at too high a price.

166. *Formulation of Provincial Rules.*—We have not taken advice as to whether the Motor Vehicles Amendment Bill includes all the principles of regulation recommended in this chapter. If it does not, (and on the assumption that it is impracticable to pass a mandatory Act), we recommend that it should be amended as may be necessary and passed into law at the earliest opportunity. We consider it to be of first importance that the principles indicated in the Bill should be given full effect to in the rules to be made by Provincial Governments ; if any adjustment of the rules should be necessary to meet special conditions this should be carried out without infringement of the principles.

We would again urge the great importance which we attach to adequate police enforcement of the rules and to the necessity for a drastic overhaul of existing arrangements for traffic control in order to ensure that this object will be attained.

We would add that most of the Provincial Governments with whose representatives we had interviews expressed themselves as favourable towards the establishment of road services by the railways subject to compliance with Provincial rules. We would venture to commend the need of encouraging the extension of road transport into those parts of the Provinces where facilities do not exist at present and where transport development, if it is to be undertaken at all, must be entrusted to a large concern such as a railway. We would also point out, as affecting Provincial Governments, that concentration of road transport in the hands of large concerns with a sense of public responsibility will not only ensure more reliable services but will render police control at once less expensive and more effective.

167. *Need for Co-operation between Central and Provincial Governments.*—The recommendations contained in the foregoing paragraphs involve a considerable sacrifice on the part of the Provincial Governments. It is an essential part of the policy outlined that Provincial authorities shall provide for the administration of the licensing law on more or less uniform principles agreed with the Central Government. In the acceptance of this policy we see the only hope for the proper co-ordination of road and rail transport, and indeed, leaving railways out of the picture, the only hope for the development of a sound and efficient road service.

At the same time, the adoption of the policy here recommended would encourage road extension on comprehensive lines, without substantial

injury to the revenues of the railways or the finances of the Central Government. We firmly believe that the acceptance of an enlightened and uniform policy of road transport regulation will do far more to protect the railways from uneconomic competition than could ever be effected by holding back the development of an adequate and independent system of public roads.

We would suggest that the circumstances call for some sort of round-table conference of representatives of the Central and Provincial Governments at which the lines of future co-operation could be agreed.

We believe that, if the recommendations made in this chapter are carried out, India will be in a position to look forward to ordered progress in the improvement, development and co-ordination of transport facilities. The adoption of such proposals will, in our view, ensure adequate services by both rail and road. We do not claim that it will protect the railways from further loss of traffic. Such losses are likely to continue for many years, as road transport develops. On the other hand, we believe that the policy we recommend offers the most effective safeguard, which is now practicable, to the public investment in railways, and will promote the full economic development of the country.

CHAPTER XI.

Road Competition: Counter Measures.

168. In our last chapter we set out at some length the steps which we consider should be taken by the Central Government, the Local Governments and railways with the object of co-ordinating road and rail transport; but co-ordination does not exclude competition, and for many years it will be necessary for the railways to reckon with increasing road competition. It remains for us to consider and suggest such counter measures as will most effectively meet this competition.

169. *Loss of Railway Traffic.*—In the Mitchell-Kirkness report, published early in 1933, the annual loss of railway traffic to the roads was placed at something under Rs. 2 crores. In 1935, when railway revenues continued to be disappointing, further estimates were made, and from the information then collected the Railway Board placed the figure at Rs. 3 crores, or about 3 per cent. of the gross earnings of a normal year.

A little more than a year later, evidence placed before us by the railway administrations indicated that the loss had increased to something like Rs. $4\frac{1}{2}$ crores. This total was made up of Rs. $3\frac{3}{4}$ crores in respect of passenger traffic and Rs. $\frac{3}{4}$ crore in respect of goods traffic, and included losses due to reductions of rates and fares introduced in order to meet road competition.

In the absence of suitable data it is impossible to assess the loss with accuracy. There can, however, be no doubt that it is already substantial; moreover it is increasing and will continue to increase. If adequate steps are not taken to co-ordinate road and rail transport we should regard an increase of 100 per cent. on the existing losses as being well within the probabilities of the case. Whatever the progress made towards co-ordination during the next few years, further attrition of railway revenues must

be expected. It is therefore essential that the railway administrations should tackle the question of counter measures with energy and courage.

170. *Counter Measures.*—In combating road competition the railways have been hampered to some extent by the lack of a concerted policy, and by the absence of financial support in carrying through reforms which must cost money before they can show results. Even so, we have been impressed with the variety of the measures which they have adopted and with the energy with which these measures have been applied.

Nevertheless the experience gained by the railways of Great Britain and South Africa may be helpful. In South Africa the underlying conditions are not unlike those existing in India ; while in Great Britain the problem is one of longer standing and has reached, indeed in some respects has passed through, a far more acute stage than it has attained in India. In both countries the counter measures applied have achieved considerable success.

The measures to be adopted may take the shape either of improved facilities or of reduced charges. Of these the second is certainly the more effective ; it is, with equal certainty, the more expensive. We would add that it is also the more obvious. It demands little intelligence or resource to suggest a reduction of charges. A reduction will often be necessary in the last resort, but it should be the last resort and not the first—adopted only when all other possibilities have been found wanting. In meeting road competition it is above all things necossary to avoid the attitude of panic which sees no remedy but in slaughtering rates without waiting to consider alternatives or to count the consequences.

I.—Passenger Traffic Facilities.

171. *Improved Speed of Services.*—We have referred to this already (paragraph 59) as a measure of economy, of improving the user of rolling stock, and of increasing the capacity of the railway. It is of even greater importance as a measure for maintaining revenue and meeting road competition.

Indian passenger trains are slow.—We are not primarily concerned here with the long distance broad gauge express trains which are not materially affected by road transport. We make no recommendation as to the acceleration of these trains. Upper class travel yields a very small margin of profit, if any, and it does not appear to be readily responsive to improved facilities. The Indian railways have from time to time instituted high class trains running at speeds which are at least beyond the average. These have not as a rule proved to be successful. The "Deccan Queen" run by the Great Indian Peninsula Railway proved to be a losing proposition, and at the time we left India a proposal was under consideration to run it at week-ends only. Even so, its continued existence would appear to be precarious. The "Grand Trunk Express", which was to provide a first class fast service between Madras and Delhi has not justified its existence as such and is rapidly sinking to the level of an ordinary intermediate express.

Taking these circumstances into account it is unlikely that special steps taken to expedite long distance express trains would prove a material

source of additional revenue or count for much in competition with road transport.

We are here concerned much more with intermediate and stopping trains, whether on main or branch lines. There are no doubt many difficulties in the way of accelerating these trains. The passengers at the stations are for the most part slow moving, and time is taken up because documents have to be signed and exchanged between the guard and the stationmaster. But when all has been said, we are still of the opinion that a great deal more can be done to expedite these services and that, in the competition with road transport, every effort should be made to get the best timing possible. The Indian passenger is quick enough to take advantage of a bus service where it saves him time at a junction point, and we do not believe that he is as indifferent to time as has been represented, though no doubt a cheaper fare, if it were offered him, would outweigh the time factor.

The railways have already taken in hand the question of accelerating such trains. We would urge that they should proceed with it energetically. A minimum time schedule should be fixed between each pair of stations and should be adopted as the standard for all trains. The length of the booked stops at country stations should be kept down to some recognised limit, say, two minutes, or less if possible. The length of the booked stops at the larger stations should be reviewed and reduced to the minimum in the interests of the through traveller. The speed restriction of 10 miles an hour over handlocked facing points is, in these days of continuously braked trains, unduly severe. In South Africa under similar conditions a speed of 20 miles an hour is permitted over such points when set and locked for the straight line.

172. *Connections.*—Connections should be overhauled and improved. At present the time allowance for changing from one train to another is in many cases needlessly generous.

173. *Intensification of Service.*—Services should be intensified in suitable sections where the traffic seems likely to respond, particularly short distance services between important towns. The North Western Railway, for instance, has recently established an intensified service between Lahore and Amritsar, with results which, we believe, have proved satisfactory. The results of such intensifications, however, must be carefully watched. They involve definite additional expense, and British experience tends to show that their beneficial effects are often of short duration.

174. *Employment of Small Units.*—Much has been done in other countries to intensify branch line and other services by the use of small units. Both steam units and diesel units have been employed. So far as the diesel unit is concerned, it is generally agreed that mechanical transmission of the syncro-mesh type is more satisfactory then the diesel electric drive.

All things considered, we hestitate to recommend substantial expenditure on small units :—

(a) They are still, mechanically, in the experimental stage. The life of the unit, and the ultimate cost of repairs may prove

disappointing. Some railways with experience of small units have reverted to small steam locomotives and light trains.

(*b*) Their traffic value is subject to very definite qualifications. In particular, their capacity is inelastic, and unequal to the special demands of periodical "peak" traffics.

(*c*) On heavily taxed single lines they may occupy paths which could be better used by more profitable trains. We have especially in mind the loss involved in delays to freight trains. Such delays prejudice the transit of goods and the turn-round of wagons, both of them features of traffic working to which we attach particular importance.

We are therefore doubtful of the wisdom, in a country like India, of incurring expenditure on the provision of units whose mechanical efficiency and permanent traffic value are still in doubt. The experiments which are now being made in India and elsewhere should be watched with close attention, until fuller information has been obtained as to actual working costs over a reasonable period of years. In the meantime further experience of the traffic value of small units in combating road competition can be readily obtained by the use of small steam locomotives and light trains.

It may be well to add that the cost of providing small units is heavy, and even where the case for their employment is considered to be conclusive the railway might still find it cheaper to transfer the traffic to an omnibus service of its own, running on parallel roads. This alternative should in any event receive consideration since it would set the railway free for the more effective conveyance of freight traffic and long distance passenger traffic.

175. *Amenities for Lower Class Passengers.*—The intermediate and third class passenger provides about 92 per cent. of the passenger revenue of the Indian railways. We are satisfied that it will pay to give more attention than has been given in the past to his comfort both on the trains and at stations.

An improved standard pattern of third class coach has recently been approved, and this gives better and more ample accommodation per passenger. It may meet all requirements, but we would urge that the railways should not too readily assume that finality has been reached. Many omnibuses, and those often of a very poor class in general appearance, provide cushions for their passengers to sit on where the railways provide nothing better than flat wooden seats. The buses also provide transverse seats accommodating two or three passengers abreast. We are informed that passengers, and families in particular, often prefer the relative privacy of these seats to the longitudinal twenty-in-a-row seats provided by the railways. It is often said that the Indian cannot reasonably expect a standard of comfort in excess of that which he would get in his own home. The logical force of the argument does not impress us, for when the object is to induce a passenger to travel (and that is the natural commercial attitude everywhere) it is precisely the comforts which he cannot get at home that are likely to be most alluring. That, at any rate, has been the experience of British railways ; and it has led them, among other

things, to make their excursion trains more comfortable and attractive by every means in their power.

The question of reserving seats is also worth consideration. We should like to commend an experiment in this direction which we observed on the East Indian Railway. An amenity of this kind may at first sight appear excessive (the extra cost can as a rule be met by levying a small charge), but we believe that, as in the case of excursion trains in Great Britain, it will be increasingly appreciated by the public, and will constitute a real inducement to travel. The introduction of inducements of this kind should be one of the objects of any far-sighted commercial management.

The accommodation offered at stations in the matter of waiting rooms, booking facilities, and the like is also a matter of considerable importance. Too little has been done in this respect in the past, and the accommodation provided is inconveniently placed even at some of the stations which have been most recently built. Some stations have no third class waiting room accommodation at all ; in many where it does exist it is nothing more than an open arcade.

We are of opinion that a certain number of stations should be overhauled each year, beginning with the more important, and that third class facilities should generally be brought up to a standard which will tempt the third class traveller with amenities superior to the advantages provided by road transport. Among such amenities we may perhaps enumerate better washing facilities ; a more plentiful supply of good drinking water ; and the provision at reasonable cost of food, fruit and sweetmeats of good quality. All such facilities can very easily be made available at a railway station, but they cannot be so easily supplied by road transport. We were glad to notice that the importance of these matters had already been recognised by some of the administrations.

II.—Modification of Fares.

176. *General Reduction of Fares Undesirable.*—We were advised on many occasions that with the lower class Indian passenger lower fares came first among competitive measures, and the rest nowhere ; that a lower fare would outweigh every advantage of speed or comfort or convenience to an extent which made it, in effect, the only measure worth considering.

We do not entirely accept this view. Speed, comfort and convenience have their value, and cost little. They may not go very far in drawing passengers from an existing road service at lower fares, but they may at least discourage new services. They should be brought to the highest reasonable level if the railways are to realise their best competitive possibilities, and before they embark on the expensive and hazardous speculation involved in reducing fares, even in competitive areas, down to the omnibus level.

Cut-throat and unregulated competition between omnibus owners has reduced omnibus fares to a level round about 2½ pies per mile. This level is, we believe, uneconomical and cannot be indefinitely maintained ; it is certainly inconsistent with a proper public service covering remunerative and unremunerative routes alike. If the railways seek to recover to any substantial degree the traffic which they have lost, they must come down to this figure, or something lower ; and they must apply it to the traffic

which they have retained, as well as to that which they have lost. We do not hesitate to say that they would lose money heavily over any such transaction, and we cannot therefore recommend any wholesale lowering of fares to meet road competition. The present road situation is too unstable, and the losses would be too great.

177. *Local Reductions.*—This recommendation does not exclude the continued consideration of local reductions where these seem likely to be successful in regaining business or preventing competition. This is very largely the policy which the Indian railways have been following and we do not see any need to push it forward more hastily. It is pre-eminently a problem for deliberation, and for experiment ; since experiments in passenger fares can always be withdrawn if they prove commercially unsuccessful. On the other hand, reductions become more difficult to withdraw as their scope grows wider. They should never be used as a means of defeating competition unless it is intended to retain them when their object has been achieved.

Apart from reductions in the ordinary fare, which have been considered in the preceding paragraph, competition may sometimes be met, or traffic created, by the quotation of special or conditional fares, *e.g.*, for market days, or feast days. It is unnecessary for us to detail the different types of such reduced fares which may be employed. It may fairly be said that the greater their variety and the greater their novelty the better, since novelty and variety are both good advertising points. The essential need is that the commercial department should be prepared to experiment boldly, and that their traffic canvassers should be encouraged to explore all the possibilities of obtaining an increase in business.

178. *Darjeeling Himalayan Railway Coupon System.*—An experiment, introduced some years ago by the Darjeeling Himalayan Railway to counter road competition, seemed to us worthy of imitation. On this line books of coupons, each exchangeable at the booking office for a ticket, are sold at prices appreciably below ordinary fares. The coupons, being transferable, need not be used by the purchaser, who can if he so wishes sell them at a small profit to anyone, and who thus becomes an agent for the development of railway travel. The arrangement has a wide popularity and we are told it has been useful in countering bus competition. Above all, it has enlisted on the side of the railway a large number of unofficial canvassers whose aim is to secure additional passengers.

179. *Assam-Bengal Railway Maximum Fare Tickets.*—Although it was not adopted to meet competition we would also commend the experiment of a flat third class maximum fare of Rs. 5|- introduced by the Assam-Bengal Railway to encourage travel over the sparsely populated hill section of the system, which joins two densely populated regions. This innovation was an immediate success, and in eight months more than doubled third class earnings. The railway claims that the adoption of a fixed maximum figure of Rs. 5|-, apart from simplicity, constituted in the special circumstances a valuable advertising factor, and this we can well believe.

180. *Booking Agencies.*—We do not think the Indian railways have done enough to develop traffic through booking agencies. These are generally cheaper than town booking offices, and more effective, since the

personal interest and advantage of the agents are engaged. It may be doubted whether the British railways have gone far enough in this respect, yet the four British Companies have at present between them no fewer than 470 agencies with a total of 887 offices in Great Britain.

We believe the fear of fraud has held the Indian railways back from what we regard as a valuable development ; it should not, however, prove impossible to detect forged tickets, and to confine the agencies to reputable and solvent firms.

The cost, apart from fraud, is limited to a small percentage on the fare, and in an age of keen competition it is worth paying this price in order to stimulate business. A very small increase of sales covers the cost involved.

III.—Goods Traffic Facilities.

181. *Acceleration of Services.*—We have already touched on this question in paragraphs 60-63 in Chapter III where we dealt with the question of economies. It is, however, the commercial aspect of the question which is the more important. Wherever we went complaint was made as to the slow transit of goods traffic on the Indian railways, and we believe that it is the superiority of road transport in this respect which, apart from lower charges, constitutes the primary reason for the diversion of rail traffic to the roads. We cannot believe that the remedy should be either expensive or unduly difficult.

We have already recommended a general acceleration of the goods train services. In this connection we should like to refer to the new service which has been established by the Madras and Southern Mahratta Railway on the Madras-Bombay main line as far as Raichur. This service gives an improved delivery throughout the whole distance, with a next day but one delivery at Raichur 350 miles from Madras. The railway has taken steps to advertise the service together with the time at which goods may be expected to arrive at the station of destination. This seems to us to be a sound and practical development which might be extended and imitated in other parts of the Indian railway system.

182. *Transit Time.*—Time spent in rail conveyance from point to point is only part of the total transit time as between the consignor and the receiver of the goods. It is often only a minor part of it. There is also the time taken between the receipt of the goods at the sending station and their despatch ; and the time taken between the arrival of the goods at the destination and their delivery to the consignees. Serious delays are apt to occur at each end of the journey, and these are just as injurious to the commercial credit of the railway as delays which occur during the journey. Such observation as we have been able to make at goods stations leads us to doubt whether the Indian railways are sufficiently alive to the disadvantage of these delays and the injury done thereby to their good name in competition with road transport.

The position is one which calls for detailed investigation. We suggest that a start be made by taking a periodical census of transit time. Such checks are being undertaken on one or two lines in India, and we consider that they should be regularly carried out by all administrations.

When the facts have been ascertained, showing in relation to a large number of consignments where the time is lost, *i.e.*, whether at sending

point, during transit, or at receiving point, steps should be taken to deal with the stages, and the points, at which the principal delays occur. We have noticed, and we believe it is a matter of general application, that many of the larger goods stations are congested with traffic. The effect is to add to the cost of handling the traffic as well as to increase breakage and loss. A systematic campaign based on the information obtained from a census of transit time would do much to reduce costs and claims, besides expediting transit.

183. *Clerical Formalities.*—We have also been impressed with the cumbrous nature of the formalities which have to be completed as between the railway on the one hand and the sender or consignee of goods on the other. The signatures which have to be given, and the documents which have to be exchanged, lead to delay and cause what appears to us to be unnecessary clerical labour. We have been assured that the signatures and receipts given are a necessary part of Indian business procedure. No such elaboration is required in Great Britain, but we admit that the conditions are widely different. The matter is one which rests between the Indian railways and the Indian business community. We suggest that the railways and the chambers of commerce should examine the possibility of adopting simpler arrangements on the lines generally acceptable in Great Britain. If it is thought to be essential that the railway should hold any goods entrusted to them until the consignee has presented to them a copy of the receipt which the sender has obtained from the railway at the sending station, we fear that it will be impossible to give the despatch which is given in other countries, and that road transport, being free from formalities of this kind, will continue to have the preference wherever the despatch given is a matter of material importance.

Another formality, which we think, from the complaints we received in regard to it, must help to divert traffic to the road, arises from the excessive demand by the station staff for the execution of risk note, form A, to relieve the railway from responsibility arising from packing defects. Some protection of this kind is needed, but we think that railways might with profit discuss this subject also with chambers of commerce, and see whether a more liberal attitude towards packing conditions would not be feasible.

The constant demand for risk note, form A, is regarded by many of the public as merely another superfluous and vexatious stage in the already cumbrous process of sending a consignment by rail.

184. *Collection and Delivery.*—The British and South African railways have for many years undertaken the service of collecting and delivering the highest classes of merchandise at all the principal centres of population and industry. A large proportion of rates in both countries is quoted on a collected and delivered basis covering a door-to-door delivery.

One of the strongest attractions of road transport is that it is able to give a door-to-door delivery over wider areas than the railways have hitherto been able to cover. The British railways have in consequence taken comprehensive measures to widen their collection and delivery services and to supply such services at stations not hitherto judged to be important enough to warrant the facility. Under a like stimulus the American railways are now providing collection and delivery services

although they have hitherto left this wholly to the trader himself and to the Express Companies.

We are satisfied that the Indian railways will have to follow suit. Many of them have realised the necessity already and are establishing collection and delivery services at the larger towns. We believe this process will have to go much farther and that it should be developed without delay.

In certain quarters we were told that there were serious difficulties in the matter of signing receipts and collecting charges. We did not go into these in detail since it was evident that other Indian railways were overcoming these difficulties.

Whilst we are of opinion that the widest possible extension of these facilities will prove to be necessary and inevitable in the competition with road transport, we see no reason at present why the provision of the service need call for the institution of a railway cartage staff as such. In Indian conditions a contractor can probably provide the service on behalf of the railway more economically, more efficiently, and with less disturbance to existing interests than the railway itself.

Where collection and delivery service is given in competition with road transport, it will probably be desirable to quote an inclusive rate from door-to-door. This, however, is not a matter upon which we feel called to make any recommendation. The railways will be better able to judge from experience how far, in each case, such a course is likely to be useful.

We learnt that one administration serving an Indian State had successfully met a public need and countered road competition by establishing goods collecting stations in the heart of the bazaar of the larger towns, and we consider this a development which might well be followed by other railways.

185. *Registered Transit.*—The railways of Great Britain have established a service of registered transit by which goods may be registered for a small additional charge in order to secure special attention during transit. When a consignment has been registered it is brought within a specialised control system. Every point on the journey is advised of its passage and the staff keep special watch until it is delivered. The service has proved to be popular and successful ; we may add that the charge made by the railway companies fully covers the costs incurred. We suggest that the possibility of adopting a service of this kind, known in Great Britain as the Green Arrow Service, might well be considered in India. Its special value as a counter measure against road competition is that it enables the railway to offer the advantage, claimed as the special merit of road transport, of personal attention to individual consignments.

186. *Containers.*—Motor transport has a great advantage over rail transport in that goods pass direct from senders' premises to consignees' premises without break of bulk. The British railways have endeavoured to counter this advantage by the provision of containers, as a development of their collection and delivery services. The endeavour has met with a very large measure of success, and we think the precedent worth considering in India. It is necessary to have adequate crane power for loading containers to truck and off-loading them at destination, but this should

not cause serious difficulty, at any rate at the larger stations. Having regard to the large number of covered wagons, which are unsuitable for containers, it will probably prove convenient to build suitable container flats, *i.e.* trucks specially constructed for the conveyance of containers. If these make a sufficient number of journeys during the year they take the place of ordinary wagons and involve no additional capital cost; indeed, they bring their own economy as being cheaper to construct than the ordinary open wagon. We would add that suitably designed containers and flats might materially expedite the transhipment of traffic at the numerous junctions between standard and other gauges. The delay at present occasioned to rolling stock at such stations must represent a considerable loss of wagon user.

187. *Refrigerator Trucks.*—The railways are at present carrying out experiments with a view to finding the most suitable type of refrigerator truck. This facility seems likely to be in increasing demand. As the question is under active consideration we make no comment on it except to point out that it would be wise for the railways to retain the ownership and full control of refrigerator trucks and not to allow them to partake of the nature of private owners' wagons. A private wagon is a curse to a railway and should be tolerated only under the most exceptional conditions, as, for example, if built for the carriage of some special traffic which passes irregularly or may cease to pass altogether. Normally, however, traffic requiring refrigerated transport is of a regular or periodical character, and its needs can be foreseen with reasonable certainty.

From an operating point of view the railways have everything to gain by providing refrigerator trucks themselves. They should also consider the question commercially in relation to road competition. It is to their interest to put themselves in the best position for retaining this traffic. If traders have to hire and equip the wagons, they will be very likely to look for ways and means of avoiding this burden. It is to be expected that road transport would willingly take the whole responsibility and secure the business.

188. *General Comments.*—Lastly, there are certain general comments which we think it may be advisable to make in regard to the improvement of facilities for goods traffic.

It is a fact that goods traffic can be most economically hauled in high capacity wagons and by high capacity locomotives. This involves holding traffic until a high capacity wagon-load can be accumulated, and holding wagons until a high capacity train can be made up; both processes involve the probability of delay, and what was known as "scientific railroading" thirty years ago looks less scientific to-day, when the most important part of a railwayman's science is to get his traffic, and to keep it, in the teeth of an enterprising rival whose strength lies in his mobility.

The British railways have had to reconcile themselves to lower minimum loads and lighter trains in order to make head against the new form of competition. We are not sure that the Indian railways have yet realised the necessity.

Present-day conditions demand quicker transit. It will become increasingly necessary to give through transit to consignments of less than the present minimum weight, and to tolerate through wagons with light

loads, in order to avoid the delays of transhipment. Vegetables move in small consignments—the railways will have to choose between sending their wagons half loaded or losing the traffic. A seventy-wagon train may take twenty-four hours to make up—but half that time is a good start for a motor lorry which can cover 300 miles in the day.

We suggest that these points call for a new approach, and that the operating outlook must be modified to allow more weight to commercial considerations of this character. The test of success in the operating department is a service that will enable the commercial department to increase its business.

IV.—Modification of Rates.

189. *Caution needed in rate reductions.*—The observations which we have made on the subject of a general reduction of fares apply with even greater force to any general reduction of rates, since rates admit of much more precise application to the circumstances of the traffic. Here, too the general line of policy would appear to be (*a*) a development of the commercial department, particularly in the research and canvassing sections, so as to secure really close touch with goods traffic conditions in their relation to road transport. (*b*) A carefully planned campaign to improve the rail service, based on a detailed knowledge of the circumstances which have led, or might lead, to diversion ; and (*c*) the quotation of reduced rates *only* where this is proved to be essential to the retention of the traffic.

A railway is placed in a special difficulty in making such quotations, since it is a national public service with customers scattered all over the country, and the quotations it makes are published to the world. A quotation which might be made to one consignor in order to win back or keep his traffic from the road must be looked at in the light of the effect it may have on a consignor of similar traffic elsewhere. There may be no undue preference but a consignor with a sense of grievance can retaliate in other ways than by an appeal to law, especially if he has a road or navigable river within easy reach of his place of business. Thus one rate may pull down another over a wide area and multiply many times the loss originally regarded as worth risking. The road haulier has no such difficulty to encounter.

In cases where rate reduction was the only means of meeting road competition for goods traffic, the British railways have as a general rule introduced exceptional rates, corresponding to station-to-station rates in India. By this means definite streams of traffic can best be defended against the attack of the road haulier and the effect of the reduction in rate is localised as far as that is possible. The Indian railways would be well-advised to follow a similar course of action.

The British railways have also availed themselves with some success of the system of " agreed charges " sanctioned by the Road and Rail Traffic Act, 1933. We do not think there is anything to be gained from an explanation of the nature of these charges, or the method of their application, since we are of opinion that they are unsuited for present-day conditions in India.

We have been asked about the value attached to " per truck " rates in Great Britain. These rates are based upon the minimum loading of a

truck and cover, under one quotation, commodities included in a number of different classes in the railway classification. They are popular with traders, mainly because they represent a substantial reduction of charge, particularly on the higher class commodities, but also because they substitute a single charge on the truck load for a number of individual charges on each class of commodities. From the point of view of the railway they must be judged by the same standard as any other rate reduction—their ultimate effect on the net revenue. Broadly speaking, this is only likely to be favourable where an overwhelming proportion of the traffic has already been diverted to road. It is only in such cases that the gains on traffic recovered to the railway will outweigh the losses on existing rail traffic carried at the reduced rate. These conditions seldom exist in Great Britain, where road transport has reached an intensity never yet touched in India ; we cannot believe that they exist anywhere in India.

We conclude that a policy of rate reduction, judiciously carried out, is an essential part of any successful defence against road transport. It can at best be no more than partially successful, but on the whole the greater danger lies in carrying it too far rather than in not carrying it far enough. Any wholesale policy of pulling down the rate structure would be ruinous, and would cost more than many years of continued leakage to the roads.

CHAPTER XII.

Public Relations.

190. *Unpopularity of Railways.*—If we may judge from the evidence which we have taken, the Indian railways are unpopular. We would almost say that they are the most unpopular institutions in India.

For this they are not wholly to blame. Railways are not popular anywhere, and in India the circumstances are particularly unfavourable. They are regarded by Provincial Governments as a department of the Central Government, and indifferent to provincial interests. Indian opinion regards them as largely European in direction, which is true enough, and European in their capital basis, which they are not. In some circles they are regarded as unfriendly to the development of home industries, and in others as a military machine intended primarily to keep the country in subjection.

The railways of India may therefore be said to start on the road for popularity with a heavy handicap against them. We are nevertheless of opinion that they must make a concerted endeavour to improve their position, and we see good reason to believe that with a well-considered policy a substantial improvement can be achieved.

191. *Need of Improving Relations with Public.*—We are aware that in India, as in other countries, there is a numerous and respectable section of those responsible for the management of the railways who say " What have we to do with popularity ? We do our duty : we manage the railway with efficiency and economy. Why should we look to popular favour for reward ? " This self-sufficient attitude presupposes that the railways are in fact efficient and economical ; if they are not, it loses its title to respect. Apart from this, the attitude may have reflected a high sense of duty in

days when the railways were a monopolist public service, but it is both inappropriate and short-sighted in existing conditions, when the railways must compete for their custom against a younger and more popular rival in road transport. In such conditions a public service cannot afford the luxury of wrapping itself in its own virtue ; it should go out and court popularity as assiduously as if it were selling soap or petrol.

Indeed, the railways at the present moment must be more assiduous in courting popularity than any ordinary commercial undertaking. They are equally concerned to gain the goodwill of their customers, and the ordinary commercial undertaking may rest content when it has achieved that aim. But the railways cannot stop there ; they must win the approval of the governing authorities as well. It does not matter what the Legislature thinks of soap ; the sales will not be materially affected. But it matters very much indeed what the Legislature thinks of the railways, because that opinion will affect legislation in which the railways are vitally interested.

In the contest with road competition, it has to be kept in mind that the problem before the railways is not merely to maintain their revenues against an enterprising competitor but, more important still, to secure the support of the Legislature, of the Provincial Governments and of public bodies in carrying through a proper system for the regulation of road traffic, such as will place road transport and railway transport on a fair competitive footing. That state of affairs does not exist at present, and it will never exist unless the railways put themselves in a position to obtain a fair hearing. Cogency of argument will not help them unless they are able to command a large measure of popularity, or at least of popular respect. This they have not got at present, and it is not too much to say that as matters stand they cannot look for a fair hearing in any quarter outside their own offices.

The duty of winning public opinion has in our view been largely neglected by Indian railways—partly from want of staff and money, but partly also from want of appreciation of its importance. We feel that the policy both of the Railway Board and of the individual administrations must be overhauled and redirected to remedy this defect, and recommend that the following measures should be included in any policy which is approved for adoption.

192. *Relations with the Press : Railway Information Office.*—One of the most important steps to be taken is to secure closer liaison and better relations with the press ; if this is done in connection with the wider scheme of press advertisement which we recommended in paragraph 116 (*f*), so much the better. The Central Government has made a good beginning by setting up a Central Press Bureau. The activities of that Bureau are already absorbed in dealing with Government publicity ; very useful work has been done by the Bureau for the railways, and the effect has been to show how much more might be done, and done with advantage.

We recommend that the Railway Board should appoint a press Liaison Officer, with an adequate staff to constitute a Railway Information Office. Both journalistic talent and a knowledge of Indian vernacular will be required. As a first approach we recommend that a young and enterprising journalist from Great Britain be invited to take over the task of

organising the Railway Information Office for the Railway Board. When selected, he could usefully spend a few weeks examining the work of the Press Office which has been organised by the British railways in London and the parallel organisations maintained by the individual railway companies. On reaching India, he should study local conditions and report as to the organisation which he considers necessary for the maintenance of press liaison not only at New Delhi but at the main centres of railway administration. We feel that some press connection should be established at least in Calcutta, Madras, and Bombay, and possibly also at Lahore; but we do not feel qualified to say whether the staff so occupied should be under the Railway Information Office at New Delhi, or under the individual administrations.

The establishment of this organisation will cost money, but it is in our opinion the foundation for any attempt to work up a "good press", and a good press is an essential feature of our proposal, particularly at this juncture.

The duties of the Railway Information Office would be :—

(*a*) to keep in touch with the press, both English and vernacular;

(*b*) to supply the press with information and articles about railway activities, or railway events. In this connection we may say we do not regard it as the duty of the Information Office to supply railway propaganda or contentious matter of any kind. Such propaganda may be accepted by the press when the position of the Railway Information Office is assured and press relations are definitely friendly; but any attempt to push such material at an early stage would render the whole organisation suspect in the present atmosphere of criticism and distrust, and might be fatal to its ulterior usefulness. The object of the Office is to supply the press with "copy" not with controversy;

(*c*) to prevent the publication of false or exaggerated reports to the detriment of railways by inducing editors to consult the Office before publication;

(*d*) to arrange interviews or social meetings from time to time between newspaper editors and prominent persons on the Railway Board or on individual administrations. Here, too, it is important that the meetings should be unofficial, without reference to any particular contentions which the railways may wish to "put across";

(*e*) to organise press trips or functions on occasions when the railways wish to popularise any particular feature, such as a new train, a new station, a signalling improvement, or simply a new idea.

We think it worth recording here that the British railways have gained a great deal of credit from the organisation of rolling stock exhibitions at the principal railway centres. The exhibitions are held at week-ends; a small charge is made to the public, and the proceeds go to local charities. The railway staff have taken a keen interest in these exhibitions and give their services free, and there has always been a large public attendance.

The success of the Information Office will depend very largely on the co-operation of railway officers. Railwaymen as a rule are deeply interested in their work, but do not stop to think that some phases of their work may interest the public also. The Railway Information Office should receive a regular flow of material, selected as special items from the day to day work of the departments, and of a kind suitable to be worked up for distribution to the press. The Information Officer and his staff should spare no pains to indicate the kind of material which can be used for this purpose, and in their contacts with the departments they should be free to go to the immediate source of information and so avoid the delay and difficulties which would arise if the business of the Information Office had to be conducted strictly through official channels.

The general object of the Information Office should be to let the public know something of railway achievements in the past and of the varied interest of railway life generally ; but first and foremost to bring home to newspaper readers that the railways as an organisation are alive and progressive—that they are open to new ideas, especially where the comfort of the travelling public is concerned, and anxious to take their customers into their confidence.

We feel that a well considered campaign on these lines will do much to improve the present atmosphere and to establish better relations with the press and the public, the more so as we understand that the Indian press is often in want of copy and likely to be responsive to an organisation that lays itself out to supply its needs. We would add, however, that no organisation of this kind can do permanent good to railway prestige if in fact the railways have no progress and no new ideas to advertise.

We have dealt at some length with the organisation of the Railway Information Office because we are conscious of the very great benefit which the British Railways have obtained from a small expenditure on an organisation of this kind. It is however only a single item, though an important one, in a policy for securing improved public relations in general.

193. *Relations with Traders.*—We have heard a good deal of evidence about Local Advisory Committees. We are of opinion they do useful work and should be maintained. At the same time, judging from experience in Great Britain, these formal periodic meetings are of much less value than frequent private meetings and an ever open office door ; and they may do harm if they are allowed to take the place of informal contacts.

It is important that Agents or Chief Commercial Managers should be members of chambers of commerce, and they should not restrict their activities to the larger or more widely recognised bodies of this kind. Questions which may develop into grievances can often be disposed of in the informal discussions which take place before or after a chamber of commerce meeting.

It is an inevitable feature of any large organisation that the local representative, whether Divisional Superintendent or Agent, must frequently find his hands tied on questions of general policy. This cannot be avoided and often leads to complaint that local interests are disregarded. We are not optimistic enough to believe that such complaints can be prevented or satisfied. They can, however, be mitigated by more personal con-

tact between local complainants and the central authority, and for this reason we wish to stress the recommendation made elsewhere (paragraph 78) that the Railway Board should be strengthened by the permanent addition of a Traffic Member whose business it shall be to travel freely with the express object of discussing general policy in its bearing on local grievances and requirements.

194. *Relations with Provincial Governments.*—In the present stage of transition it is not easy to say much on this point. A new situation is being created and it will be very important for the railways to stand well with the local legislatures if they are to secure an equitable settlement of road-rail problems. All that it seems possible to say at this stage is that the matter is one which needs to be carefully thought out and that in the meantime the liaison with the officials of the Provincial Governments should be made much closer. The question of road development has hitherto proved to be a stumbling block between railway administrative officers and Provincial Government officials, not through the fault of either party. We hope this source of misunderstanding will be removed if the recommendations which we make elsewhere (Chapter X) are carried out. In any event the railway management should make it their object to secure and maintain the most friendly relations with the officials of the Provincial Governments. We have been rather strongly impressed with the apparent absence of good understanding at the present time.

Similar remarks apply to the relations with the Provincial Boards of Communication. These are by no means satisfactory at present. On road transport questions in particular, the railway representative is too often forced to play the reactionary role of opposing road construction. We hope that in future he may have the more congenial part of helping forward the organisation of road transport, and the development of road construction, along lines which will be to the general interest of the public.

195. *Popular Edition of Annual Report.*—Before leaving the subject of public relations, we think it may be worth while to suggest for consideration the publication of an annual report of the railways of a less ponderous character than the two volumes which now appear each spring. These are no doubt intended for the consumption of serious students, but we suggest that they fail to attract persons of limited leisure or less voracious appetite for figures. Yet such people often have a natural interest in railways and an intelligent desire to know more about them.

We would commend to the consideration of the Railway Board the annual report now produced by the London Passenger Transport Board. This is deliberately aimed to attract the attention of the press and the general public, and it tells with interesting detail the story of the activities of the Board during the year. We believe that it succeeds in its object. and the precedent is worth following.

196. *Urgent Need of Action.*—In conclusion we would urge once more with all the weight we can that the Railway Board and railway administrations must lose no time, and grudge no effort, in overcoming their present unpopularity and establishing a higher prestige with the public of India. It is worth spending money to achieve this end, or even to approach it, since the results of a contrary course may quickly be measurable in money losses far exceeding the possible expenditure. In the present position of road transport, unpopularity will quickly be turned

into permanent disadvantage. The present go-as-you-please licensing system is inequitable to the railways and should be amended. But if the railways attack the problem under the handicap of their present unpopularity they are likely to find their last state even worse than their first.

This is only one direction, although the most salient, in which the railways need the support of a favourable public opinion. Others, such as the question of ticketless travel, will readily occur to anyone who is familiar with the political and parliamentary situation.

CHAPTER XIII.

Amalgamation and Redistribution of Railways.

197. *Disadvantage of Unwieldy Administrations.*—We have considered whether we can in existing conditions make any recommendation as to the amalgamation of railway administrations.

It is clear that at the present time nothing can be done as regards the privately-managed railways. These have their contracts with Government which terminate at the option of Government as follows :—

Railway.	Date of expiry of contract.
Assam Bengal	.. *31st December 1941* or at the end of any succeeding tenth year, on 12 months previous notice.
Bombay, Baroda and Central India	.. *31st December 1941* or at the end of any succeeding fifth year, on 12 months previous notice.
Bengal and North Western ..	.. *31st December 1942*, on 12 months previous notice.
Madras and Southern Mahratta ..	.. *31st December 1945*, on 12 months previous notice.
South Indian	.. *31st December 1945* or at the end of any succeeding fifth year, on 12 months previous notice.
Bengal Nagpur	.. *31st December 1950* or at the end of any succeeding fifth year, on 12 months previous notice.

When the contracts terminate, but not before, the Government have the option of taking over each of these administrations, and can then consider whether they should combine them with any of the existing state-managed administrations.

If it should be decided that the proper policy is for the Government in course of time to take over the whole of the railway administrations, we are of opinion that it would still be desirable for them to maintain separate state-managed administrations of reasonable dimensions. If the administrations are unduly extensive, headquarters supervision becomes too remote, and the machine as a whole becomes unwieldy. The *esprit de corps* of such overgrown concerns is weakened and they lose the individuality that comes from direct personal initiative at the top. We think there is also much to be said for preserving a measure of rivalry between different administrations, particularly at one centre. This tends to stimulate efficiency of service and progressive ideas of management.

Acting on these principles we would suggest that the ultimate grouping might be as follows :—

East Indian Railway	As at present.
Eastern Bengal and Assam Bengal Railways	To be combined in one group.
North Western Railway	As at present.
Great Indian Peninsula Railway ..	As at present.
Bombay, Baroda and Central India Railway	As at present.
Madras and Southern Mahratta and South Indian Railways	To be combined in one group.
Bengal Nagpur Railway	As at present.

If it is proposed to take over the Bengal and North Western Railway, it would in our opinion be best to maintain its separate organisation as at present.

198. *Drawbacks to State Management under Present Conditions.*—The foregoing suggestions are made on the assumption that it is thought to be the proper policy for the Government ultimately to take over the management of all the Class I administrations. We do not, however, on present experience, recommend such a course.

The history of state management in India is not encouraging and it seems clear that present methods are unsatisfactory. They tend to cramp initiative ; they impose complicated regulations and they involve an immense amount of routine correspondence. The inspection and supervision which is thought to be necessary in connection with the collection and expenditure of public money divert the attention of officers from work of greater importance and impose a heavy burden upon the finances of the railways. Judging from the considerations and contentions which have been put before us, it does not appear possible in the main to avoid these disadvantages under any system of state management as at present understood in India.

If therefore the only choice available lay between a continuance of private management and an extension of state management on existing lines, we should strongly recommend the former alternative. Indeed we should feel bound to urge a radical reconsideration of the whole question of state management and a fresh examination of the possibility of creating privately managed companies with Boards of Management domiciled in India. This suggestion was rejected by the majority of the Acworth Committee, but they rejected it in favour of a form of state management which was not adopted.

They urged that the railways, as a state-managed concern, should be independent of the general finances ; that they should be responsible for

meeting their own financial obligations, and that apart from this no contribution should be made by them to the general revenues. Any surplus available was to have been put back into the business either in the form of reserves, improved services or cheaper charges to the public.

199. *Public Ownership under the Federal Railway Authority.*—It is very much to be regretted that the form of public ownership recommended by the Acworth Committee, which is well-known and understood and has so far been successful in Great Britain, was not adopted in India. It is fortunate, however, that under the Government of India Act, 1935, a fresh opportunity is offered.

Under that Act a Federal Railway Authority is to be established, contingent only upon the adoption of the Federation plan itself as a whole. The constitution of the Federal Railway Authority may be the means of introducing fresh principles which will display the effects of state management in a much more favourable light than has been possible under the existing system.

We shall deal later with the basis upon which it appears to us that the Federal Railway Authority should be established (within the terms of the 1935 Act) if the finances of the railways as a whole are to be placed upon a sound and remunerative basis. At the present stage we only note that, if the Federal Railway Authority can be established as an independent public body conducting its affairs on the lines indicated in the Acworth Report, an opportunity will be provided for a fresh trial of state management under more favourable auspices than hitherto, and there are reasonable grounds to hope that the experiment might prove successful.

200. *Need of Easing the Initial Burden of the Federal Railway Authority.*—It is evident, however, that time will be necessary to judge of the success of the new development. The experiments which, following upon the Report of the Acworth Committee, might have been tried with the comparatively small organisations of the individual railway systems, must now be tried out on a wider field covering in the first instance the whole of the state-managed systems of India. With the possible exception of South Africa, where railways, telegraphs, harbours, air services and, to a large extent, road transport, are grouped under a single management, it is doubtful whether a state-owned undertaking of this magnitude is at present to be found in any parliamentarily governed country in the world, and it would be unwise to underrate the difficulties of the task or the risks of failure that are involved. For these reasons it is essential that the new Federal Railway Authority should be given time to find its feet and to earn public confidence before further additions are made to the burden of its responsibilities. The Authority may very well find, as a result of a few years' experience, that the responsibilities they have undertaken are as wide as it is wise for them to incur. Indeed they may wish to divest themselves by decentralisation of some of the responsibilities assumed in the first instance.

We have kept this consideration before us in framing our recommendations as to the policy to be followed.

201. *Amalgamation of Railway Administrations.*—We consider that no amalgamation of railways is desirable at the present time. Our reason

for coming to this conclusion is that no amalgamation at present possible would fall in with the scheme of ultimate grouping already outlined (paragraph 197).

We have considered in particular the arguments for and against the amalgamation of the Eastern Bengal Railway with the East Indian Railway. This would produce certain superficial economies, but we believe these would be effected at the expense of the proper management and supervision of the enlarged system. The East Indian Railway organisation is already in our opinion fully large enough for the conditions of economic management.

We have suggested that at a later date the Eastern Bengal Railway could be amalgamated with the Assam Bengal Railway, and that the two railways would constitute a convenient unit for economical management; but such an amalgamation for obvious reasons is not a possibility at the present time.

202. *Options to Purchase.*—The Federal Railway Authority has not yet been constituted and is dependent upon certain political contingencies which have not yet arisen. We assume, however, that it is likely to be constituted at some time within the next two years.

For the reasons already given, we consider that the new Authority will need time to organise itself, to prove its value, and to form a conclusion as to the future development of its own responsibilities. Any question of the exercise of the Government's option of purchase of privately-managed lines should therefore be postponed until the Federal Railway Authority has been allowed the necessary breathing space.

On the other hand, it is impossible to look for sound and farsighted management on the part of the privately-managed concerns, if they have short-dated options constantly hanging over their heads. In such circumstances their policy is bound to be affected disadvantageously by the consideration that any capital or revenue expenditure incurred, if it is to be commercially justified, must reach its full fructification at least within the period of the option.

From this point of view we consider the whole policy of short option periods unsound and undesirable, and we cannot recommend any system of short postponements at the convenience of the Federal Railway Authority.

The options for the purchase of the Madras and Southern Mahratta and the South Indian Railways do not mature until 31st December, 1945. The occasion should in our opinion be taken for the amalgamation of these two railways, not necessarily under state management.

We are further of opinion that for the reasons indicated it would be convenient to postpone the options in respect of the Bombay, Baroda and Central India Railway, the Bengal and North Western Railway and the Assam Bengal Railway until the same date. This will give the Federal Railway Authority seven years to establish itself and to decide upon its policy in the matter of purchase; and in our opinion seven years is the minimum period required for the purpose.

The delay will have a further advantage to which we attach considerable importance. It will be desirable for obvious reasons that the purchase of the privately-managed railways, if it is approved, should be financed as far as possible by the Authority itself, and not wholly out of Government funds. If this is to be achieved the Authority must be given time to commend itself to the financial world as a well-managed and trustworthy undertaking. We suggest, once more, that seven years is not unduly long as a period of probation.

203. *Financial Considerations.*—Our recommendation contemplates that the options on five out of the six privately-managed lines will fall in simultaneously at the end of 1945. This may seem to impose too heavy a burden on the shoulders of the Authority, if purchase is the policy ultimately adopted. In making the recommendation we have been influenced by the advantages to be obtained, for purposes of re-organisation, from carrying out the whole operation at one time. There will inevitably be some re-allocation of physical assets, some re-arrangement of workshops, etc., following on the purchase, and these adjustments can be planned and executed most effectively if the whole of the changes take place contemporaneously. The same considerations apply to the transfers of administrative officers, and re-distribution of staff.

We appreciate on the other hand that our proposal involves financial considerations which must necessarily take precedence of mere administrative convenience. If it be thought that the simultaneous purchase of four or even five privately-managed systems is beyond the financial resources of the Authority, even with the assistance of Government, it will be necessary to provide for suitable intervals between the expiry of the different options. In that event we suggest that the option on the Assam Bengal Railway should be timed to fall in at the end of 1947, and that of the Bombay, Baroda and Central India Railway should not become due until 1950, when it would coincide more or less with the expiry of the contract held by the Bengal Nagpur Railway.

204. *Need of a Definite Understanding.*—The actual dates to be fixed are in our opinion a matter of secondary moment. It is of much greater importance to give the situation all the precision and stability of which it is capable. If it is felt, as we submit, that the Federal Railway Authority must be given ample time to obtain a full grasp of the problems it has to face, and to prove its value, then it can hardly be doubted that the decision as to the further extension of state management to privately-managed railways must be deferred beyond the end of the years 1940 and 1941. If this is admitted, it must follow that it is better to recognise the necessity without delay, and to fix the dates of the options as far beforehand as possible. The extended period, thus conceded, will enable the railway administrations affected to take a longer and a more commercial view of their opportunities and responsibilities.

We therefore recommend that the Government should immediately undertake arrangements for the extension of the contracts to the dates here suggested or such other dates as may be thought more appropriate. This will enable the privately-managed railways to conduct their affairs on more farsighted lines than is possible at the present time, and with a

longer period for the fructification of wisely planned expenditure ; and it will give the Federal Railway Authority time in which to establish itself and to solidify its credit.

CHAPTER XIV.

Financial Outlook.

205. *Railway Contributions to the General Revenue.*—Until 1924 railway finance was part of the fabric of Government finance ; a loss in any year was borne by the taxpayer and a gain went to the relief of the taxpayer. In the first forty years of the existence of the railways an aggregate loss of Rs. 58 crores was sustained. Thereafter, from 1898 till 1924, practically every year recorded a gain, amounting altogether during this time to Rs. 103 crores. It was during a period of prosperity that the railway budget was in 1924 separated from the general budget, and a convention was adopted defining the extent to which contributions were to be made from railway revenue to the general revenues. There is no occasion here to recapitulate in full the provisions of that convention ; broadly, it required the railways, after meeting their working expenses, providing for depreciation and paying their interest charges, to contribute to the general revenues as a first charge on surplus profits a sum equivalent to one per cent. of their capital, and over and above that a substantial share of any residual profits. We would remark in particular at this point that the railways were not in a position to put any funds into a general reserve until they had paid one per cent. on their capital in addition to their interest charges.

During the twelve years since the separation the railways have contributed Rs. 42 crores to the general revenues. The profits from which these contributions were paid were earned in the first-half of the period, when the railways were able not only to meet their current obligations but also to build up a general reserve, which in 1928-29 amounted to nearly Rs. 19 crores. In order to meet their obligations during the second-half of the period the railways practically depleted their general reserve, and by 1935-36 drew upon the depreciation fund to the extent of Rs. 31½ crores ; in addition a debt of nearly Rs. 31 crores had been accumulated in respect of arrears of contributions due under the convention. We understand that it has been decided to write off both these liabilities. In so far as this decision applies to the arrears of contributions it relieves the railways of a burden from which they would otherwise, in our opinion, never be able to free themselves, and to this extent it is to be welcomed. The issues as they affect the depreciation fund, however, are not so simple, and it is desirable to deal with them at some length.

206. *Depreciation Fund.*—This fund was instituted at the time of separation of the railway budget from the general budget in 1924-25. Annual appropriations were originally made on the basis of the estimated lives of wasting assets applied to the original cost of those assets. More recently the basis was changed to one-sixtieth of the capital at charge. This change did not, however, materially affect the quantum of the provision ; as we understand it, it was, rather, a new and convenient way of expressing the result produced by the original basis of estimated lives.

The amounts allocated to and withdrawn from the fund, and the net accretions, are shown year by year in the following table :—

Lakhs of Rupees.

Year.	Allocations to Fund.	Withdrawals from Fund.	Net Accretions.
1924–25	10,35	7,29	3,06
1925–26	10,67	7,98	2,69
1926–27	10,89	8,05	2,84
1927–28	11,38	10,95	43
1928–29	12,00	9,60	2,40
1929–30	12,59	11,76	83
1930–31	13,07	11,39	1,68
1931–32	13,46	8,26	5,20
1932–33	13,77	6,35	7,42
1933–34	13,56	8,08	5,48
1934–35	13,72	8,66	5,06
1935–36	13,25	9,16	4,09
Total	148,71	107,53	41,18

The progressive increase in the allocations is a reflection of the increase in the value of wasting assets or, to put it broadly, in the capital at charge

The following amounts were borrowed from the depreciation fund to enable the railways to pay their interest charges in full :—

Year.	Borrowings from Depreciation Fund. Lakhs of rupees.
1931-32	4,25
1932-33	10,23
1933-34	7,96
1934-35	5,06
1935-36	3,99
	31,49

The effect on the depreciation fund was that whereas the nominal credit balance was Rs. 41.18 crores, the actual credit balance was no more than Rs. 9.69 crores.

We understand that the balance at the end of 1936-37 is likely to be more favourable and that, excluding the share of the Burma Railways, it is expected to stand at approximately Rs. 14 crores.

The decision to write off the amounts borrowed from the depreciation fund does not alter the balance of the fund, nor does it affect the ability of the railways to increase the balance if that should be thought desirable. It does, however, by relieving the railways of an obligation to repay the amounts borrowed, convey an implication that the present credit balance is an adequate one.

The adequacy of this balance cannot be measured by reference to immediate requirements. The object of creating a depreciation fund is to enable regular annual appropriations to be made from revenue, in bad years no less than in good years, for the purpose of meeting expenditure on renewals ; and this expenditure may fluctuate widely in amount from one year to another. It is essential that the fund should be maintained at such a level as will permit of exceptional requirements being met ; moreover emergencies may arise, with far greater likelihood in India than in Great Britain, which may make sudden and heavy demands upon the fund. Having regard to these considerations, and to the balances which are regarded as proper on other railways of which we have experience, we are of opinion that the present balance of Rs. 14 crores is substantially lower than financial prudence demands, and that a normal balance of Rs. 30 crores would not be excessive.

207. *Basis of Appropriations to Depreciation Fund.*—The annual appropriation is at present made on the basis of one-sixtieth of the total capital at charge. This we understand to be merely a convenient way of expressing the total contribution as calculated on the basis of the estimated lives of wasting assets applied to original cost. These estimated lives were, we are informed, adopted after investigation by an expert railway committee consisting of a civil engineer, a locomotive officer and an accounts officer, and were based on actual experience of the past. The schedule as a whole is more comprehensive than any with which we are acquainted ; it is extended to items, such as bridges and buildings, the life of which may with ordinary repair be almost indefinitely prolonged. The schedule differs also in regard to a number of items from the estimated lives adopted by the British railways, being in some instances longer and in other shorter. Probably the climatic conditions of India are partly responsible for this ; but we would add that the practice of the British railways themselves is not uniform. The schedule of lives is a matter which calls for detailed investigation by experts, and we make no claim either to possess the experience or to have had the necessary time to carry out such an investigation. As far, however, as we have been able to compare the practice of the Indian railways with that of other railways, we are of the opinion that, taking one item with another, the estimated lives as at present adopted are reasonable and adequate.

We are not much impressed with the advantage of calculating depreciation on a flat percentage equal to 1|60th, or 1-2|3 per cent., of the total capital at charge. This method is less laborious, no doubt, than taking the life of each description of asset separately, but we doubt if the labour saved compensates for the loss of accuracy, which may become considerable, whilst the apparently unscientific character of the flat percentage may definitely weaken the authority of the fund. On the other hand we see no occasion to undertake elaborate calculations of the character that appear to have been thought necessary prior to the Financial Commissioner's Memorandum of 11th July, 1933.

In any event the schedule of estimated lives should be reviewed from time to time and modified in the light of experience ; and the flat percentage, if that principle is maintained, should be recalculated accordingly.

208. *Appropriations to Depreciation Fund not Excessive.*—The nominal balance of the fund has grown year by year. It has been sug-

gested to us in various quarters that this is evidence that the contributions made have been unduly high. We think this contention is mistaken.

The depreciation fund, set up at a period when the life of the assets to be covered had already in part expired, is necessarily an immature fund, and it is an inevitable characteristic of such a fund that the contributions for many years must exceed the outgoings if the fund is ultimately to establish itself as reasonably sound. This circumstance therefore affords no presumption that the contributions are unduly generous.

209. *A New Charge upon the Depreciation Fund.*—It is proper here to direct attention to a change in accountancy which will tend to increase the annual calls upon the fund.

On the state-managed railways, when an asset is replaced, the original cost of the asset has hitherto been found from the depreciation fund and the difference between the original cost and the replacement cost has been debited or credited to capital according as the cost of replacement has been more or less than the original cost. On company-managed railways, on the other hand, the cost of replacement by a like asset is debited to revenue and the balance, representing the additional cost of improvement or betterment, is charged to capital. The contracts of the company-managed railways are based on this principle.

The system in operation on the state-managed railways has resulted during the last twelve years in charging to capital various items, amounting in total to some Rs. 20 crores, which under the alternative system would have been charged to depreciation or to revenue. There can be no question that the alternative method is the more prudent of the two, and we understand it is now being adopted. The additional burden which will thereby be thrown upon the depreciation fund will be in the neighbourhood of Rs. $1\frac{1}{4}$ crores a year.

Had this practice been in force during the twelve years 1924—36 (see Table on page 124) the net accretions to the fund during that period would have been reduced by more than one-third.

When allowance is made for this additional annual draft upon the fund it becomes clear that the margin between contributions and outgoings is narrow and should not be arbitrarily reduced.

210. *General Reserve Fund.*—During the prosperous years following the separation convention the railways were able to build up a general reserve fund out of the share of surplus profits which they retained. This fund reached its peak, namely, Rs. 18.8 crores, in 1928-29. In the three succeeding years it was drawn upon to make good the deficiencies in the contributions due to the general revenue and was practically depleted, the credit balance having been reduced to less than Rs. 1 crore.

We consider it essential that, in addition to making adequate provision for depreciation, the railways should build up a general reserve fund as soon as their financial position permits them to do so. Its primary object would be to serve as an equalisation fund to which appropriations would be made in good years, and from which withdrawals could, if necessary, be made in bad years, when interest charges were not fully earned.

We understand that general approval has been given by the Public Accounts Committee and the Railway Standing Finance Committee to a proposal that a sum in the neighbourhood of Rs. 5 crores a year should be provided from revenue for amortisation of capital. This we consider to be a wise and prudent course. The need for such a provision is second only to the need for an equalisation fund, and both purposes might conveniently be met by a single general reserve fund.

We need not stress the capital importance of accumulating a fund of this character. The financial position of the railways is thoroughly unsound when the depreciation fund has to be raided to pay interest charges. Bad years are certain to recur in the future, as in the past. During the recent series of bad years it was found possible to maintain the full payment of interest charges only by drawing nearly Rs. 50 crores from the funds. The general reserve fund was depleted within three years, and the depreciation fund was reduced to one quarter of its original figure before the economies effected and the return of better trade saved the situation.

Having regard to these circumstances, we recommend that all revenue balances, after provision for depreciation, should be appropriated to the general reserve fund until that fund has reached a total of not less than Rs. 50 crores. This fund would be available to meet deficiencies in interest payments in bad years. In so far as the fund is used for this purpose it should in our view be restored to the level of Rs. 50 crores as soon as revenue balances are available for the purpose.

211. *Amortisation of Capital.*—The fund would also serve, as might be necessary, for amortisation purposes, and the whole of any balance in excess of the Rs. 50 crores already mentioned would be available for this purpose. Specific assets should be written off when they have fallen out of use as, for example, branch lines which are closed because they have become unremunerative. There are other elements in the capital account, such as the Rs. 20 crores already referred to as having been charged to capital instead of to depreciation or revenue which equally ought to be written off. Apart from such particular instances it is a wise course, when the funds are available, to make a general provision for writing down capital, particularly in the case of a state-owned system of railways which, as in India, represents a very large proportion of the total public debt.

212. *Prospective Railway Earnings.*—The Indian state-owned railways, after six consecutive years of deficiency, have been able in the year 1936-37 to meet in full the interest charges on their capital. For that year we have only provisional figures, since we have to rely on the budget estimates which were published just before we left India. But it is clear that the gradual improvement which was first discernible in 1933-34 has been accentuated ; and in their ability to pay 4 per cent. on their capital the Indian state-owned railways compare very favourably with other large railway systems throughout the world.

In judging of the future it is necessary to take a broad survey, and no period less than a complete trade cycle is sufficient for the purpose. We have had to consider whether the next trade cycle is likely to show

better results for the railways than the last. In our view the results will be less favourable. For this view we have the following reasons :—

(a) Whilst the next few years are likely to show improving trade, this is due to conditions which are partly artificial and to that extent precarious in character.

(b) Some of the burdens which were assumed by the railways during the period of prosperity will remain as a permanent additional charge for the future. Rates of wages were liberally increased and it has proved impossible to reduce them substantially during the times of depression. Capital expenditure was freely undertaken, much of which has not yet fructified, and some of which owing to motor competition is never likely to fructify.

(c) Road competition, according to the best estimate we have been able to frame, has already reduced railway net revenues by Rs. 4½ crores per annum and the loss is increasing. Regulation of road transport, whatever form it may take, is unlikely to stop this drain, though it may be expected that the leakage will proceed less rapidly if a proper system of regulation is adopted. It is difficult to say to what point the present tendency may be carried, but it is probably wise to assume that at the conclusion of the next trade cycle the amount of the loss will be at least double the present figure.

(d) On the other side of the account comes the question of economies. We are unable to point to any economies of first class magnitude at present realisable. Such economies as can be made following on steps already taken, or recommended in this Report, will be small in amount and will only suffice to mitigate the increase of expenditure which inevitably follows on a substantial increase in the volume of business.

(e) The principal recommendations in the Report bear upon the possibility of increasing revenue, and the adoption of these recommendations will involve initial expenditure, as, for instance, on the development of the commercial department, on the provision of improved contact with the press and the public, or on increased advertising. Whilst we are satisfied that these measures will in the course of time bring a satisfactory increase in gross revenue, this result will take time to produce, and in the early years the additional expenditure may be considerable.

When allowance is made for the foregoing factors we find it difficult to believe that over a period representing the next trade cycle the railways will, after making the appropriations requisite for the depreciation fund, earn more net revenue than will reasonably suffice to secure the interest on their capital obligations.

213. *Railway Liability to be limited to payment of Interest Charges.*—In view of the necessity of building up funds of the character we have discussed, and of the heavy demand which this would make upon any surplus railway revenue, we do not consider that there is any prospect, consistent with sound management, of balances accruing which

could be used in relief of general taxation. It would in our opinion be unsound to estimate for such relief at the expense of the depreciation fund or of the general reserve fund, having regard to the purposes for which these are urgently required.

On the other hand, the existence of these funds will afford the best insurance that is possible against default by the railways in the payment of their interest charges.

We think that this situation should be recognised and that the railways, while they should be expected to maintain full solvency, should not be regarded as a possible source from which contributions to the general revenue might be derived. We are aware that it was hoped that the surplus earned by the railways might be such as to place the Central Government in a position to contribute revenues to the Provincial Governments, if not immediately at least five years hence. This hope should no longer be entertained; but every endeavour should be directed towards placing the railways in an assured position to pay their interest charges in full year by year and so avoid becoming a burden upon the general revenue.

CHAPTER XV.

Federal Railway Authority.

214. Under the Government of India Act, 1935, there is to be constituted in the event of Federation a Federal Railway Authority. This is to consist of seven persons to be appointed by the Governor General, of whom not less than three will be appointed by him "in his discretion", and the Governor General also "in his discretion" will appoint one of the members to be the President of the Authority.

We have already alluded to the unprecedented extent of the organisation to be entrusted to the Federal Railway Authority, and to the equally unprecedented amount of the capital charges for which it will be responsible. We should be failing in our duty if we did not emphasise the dangers to which a venture of this kind, largely experimental in its character, is peculiarly exposed.

215. *Political Interference.*—The first and most obvious danger is that of political interference. This question is one which has always been a source of difficulty and dispute in connection with state management of railways in other parliamentarily governed countries. We cannot refrain from expressing our sense of the importance of limiting this feature in a country such as India, where any departure from sound finance and sound business principles will entail heavy losses on the general revenues and heavy increases in taxation which (so far as we can learn) the country is in no position to support. The railway debt amounts to two-thirds of the total Government debt. It is reasonable to hope that, with due economy and foresight, the railways can continue to pay the interest on this debt, but there is no margin for mistakes, whether they are due to laxity or to optimism. The effect therefore of political intervention in deflecting railway policy from the strictest line of economy and sound business management must immediately show itself in a deficiency on the interest due to the Government, and an increase in the burden to be borne by the general

taxpayer. A comparatively small deficiency in the interest due on the capital sum of nearly 800 crores of rupees can only be met by a very substantial addition to taxation.

It is evident that the problem has been prominently in the minds of those who framed the scheme for the Federal Railway Authority and it would be impertinent in us to labour the matter unduly. We feel, however, that the constitution of the Authority itself is of such importance that we ought not to pass over this aspect of the question altogether in silence.

Care has been taken in framing the Statute to secure that the Federal Railway Authority is constituted in such a way that its members will be, as far as possible, free from all parliamentary connections other than the control properly exercisable by the Governor General in Council or in his discretion. We think it very important that the personnel of the Authority should receive the most careful consideration before appointment. In our view the President of the Federal Railway Authority should be a business man of high standing and of wide experience. It is, we consider, immaterial that he should have any specialised railway experience or intimate knowledge of the peculiar conditions of India. It is more important that he should bring the whole energy of a fresh and vigorous mind to bear upon the problems which will confront the Federal Railway Authority.

The other members of the Authority will presumably be business men of wide experience in various fields, whose duties will be confined to attendance at the periodical meetings of the Authority with fees paid on a reasonable basis. The positions should be such as will attract the best business talent, without involving serious curtailment of other business activities.

216. *Administrative Interference.*—We have dealt in the preceding paragraphs with the danger of political interference in the management of the railways. There is a similar danger to be apprehended from another quarter—that of the Government administrative machine itself. Whilst political interference is the highroad to bankruptcy, administrative interference leads to stagnation, and is almost equally to be deplored. The danger we have in mind lies in the quality of the Central Administration itself and in the power, even in the efficiency, of the bureaucratic machine.

The history of the state management of the railways during the past ten years may supply a warning as to the necessity of giving the new Authority a free hand to manage its own affairs. It is evident that, in the past, Governmental pressure has been brought upon the railways to increase wages in good times without much regard to the level of wages generally ; to lower rates without much consideration for the lean years that must follow, and to embark upon capital expenditure, as a form of industrial stimulant, without that careful assessment of the benefits to be realised which should accompany such commitments. Such steps, once taken, cannot in practice be recalled and remain as a cumulative burden upon railway finances.

Equally, in bad times, Governmental pressure has in the past been placed upon the railway administration to cut out all expenditure which could not justify itself by the immediate return which it yielded, or to postpone expenditure which ought to have been incurred, because the benefit to be obtained from it was not immediately realisable, or precisely

measurable, in additional net revenue. This shortsighted action follows almost inevitably from the position of the Government *vis-a-vis* the railways in the past. The Government, as a shareholder, has benefited from any surpluses realised by the railways in good times and has claimed its dividends up to the hilt. In bad times it has been in a position to use its whole weight in squeezing out a return, often by economies of a fallacious and improvident character.

Under the new conditions it is of the first importance that the Government should limit its interest to that of a debenture holder. This would be sound policy in any event, and in existing conditions it represents no sacrifice of general revenue. The forecast of the future financial position of the railways which we have already given is sufficient to indicate our view that no surpluses are likely to arise which could be credited to general revenue with any regard to the financial stability of the railway structure. If this view is accepted, there need, we suggest, be no hesitation on the part of the Government in making a definite renunciation of any claim to hypothetical balances for the future. The way would thus be clear to the establishment of the Federal Railway Authority on a self-supporting basis, provided it is able to pay the full amount of the interest due to the Central Government on the capital at charge. If this condition is fulfilled, we would urge very strongly that the intervention of Government Departments in the control of the Federal Railway Authority should be cut down to the lowest possible limits.

217. *Obligation of Federal Railway Authority to meet Interest Charges.*—It is perhaps most convenient to deal at this point with a question which will necessarily call for consideration. "What will be the position if the Federal Railway Authority fails to pay the interest due to the Government?"

The first, and most obvious, answer to this question is that the Authority *must not* fail. Every step must be taken to prevent such a contingency from arising. All net revenue balances realised in good years must, as recommended in the previous chapter, be utilised for building up a general reserve fund for the purpose of making good deficiencies in the payment of interest charges in lean years. It must be open to the Authority, under conditions to be defined, to "borrow" from the depreciation fund, in order to make good any deficiency which might still remain after the exhaustion of the general reserve fund. It is clearly better that the Authority should carry on without any depreciation fund than that it should fail in its obligations to the Government.

If, when all these measures have been exhausted, there still remains a deficiency, the Government could not be denied the right of a debenture holder to appoint a receiver for the railway undertaking as a whole, or in other words to take over the management itself. This will in effect mean new legislation, and it is useless at this stage to anticipate what form that legislation may take. In the meantime the experiment of the Federal Railway Authority would have to be written off as a failure.

218. *Raising of Capital by Federal Railway Authority.*—We may perhaps allow ourselves to hope that the gloomy possibilities touched on in the previous paragraph will not be realised, and that the Authority will justify its financial independence by meeting all its obligations. There

will nevertheless remain another problem peculiar to its position, at any rate at the outset of its activities. It must be taken for granted that the Authority will have to spend capital year by year as has been done by the Railway Board. How is it to raise this additional capital ?

We do not feel we are in a position to discuss the legal powers of the Authority in this matter as they now exist. We assume that, if these powers are found not to be sufficient to give the Federal Railway Authority the liberty which is thought proper for it, the law can be suitably amended.

There appear to us to be two alternative courses available :

(*a*) The first alternative, which may be said to be in accordance with orthodox tradition, is that the Federal Railway Authority should come to the Government for such capital as it requires and that the Government should raise the capital very much in accordance with its present practice. This solution is simple ; it raises no new features or difficult precedents. At the same time we feel bound to express our view that any such solution would be fatal to the independence of the Authority.

The Government must take responsibility for the payment of interest on any capital so raised. It would be absurd to suggest that it should take such responsibility without a careful examination of the need for the new capital and the probable return upon it. The Government Financial Authorities would therefore at once be interested in every item of capital expenditure incurred by the Federal Railway Authority. They would feel compelled to satisfy themselves that the capital was being wisely expended, that it was being kept to the lowest possible figure, and that the return anticipated might reasonably be expected. In the upshot the Government Audit Department would consider itself bound to take up very much the same position that it now assumes in connection with the railway audit, and the Authority would find itself once more in the leading strings from which it is the whole purpose of the proposed reorganisation to liberate it.

The result would be almost equally unfortunate from the Government point of view. On the formation of the Federal Railway Authority it will presumably be the object of the Government to limit and lighten the burden of its financial responsibilities in connection with the railway undertaking as a whole. The railways represent two-thirds of the public debt of India and this, we believe, is regarded as an element of insecurity in the Indian financial position. Any steps which can diminish this excessive proportion would, we believe, be welcomed, and should be a definite object of policy. If, however, the Authority continues to look to the Government of India to raise all additional capital, this policy will be defeated and the disproportionate weight of the railway burden may be still further increased.

(*b*) The second alternative is that the Federal Railway Authority should itself issue such additional capital as it may require. It is to be said in favour of such a course that it will fortify and support the independence of the Authority and that it will, at any rate, not increase the obligations of the Central Government. The power to issue capital at a reasonable rate will also be a test of the credit of the Authority and will thereby be useful in preserving the standard of management of the railway undertaking. It may be assumed that no Board of business men,

however, constituted, will be indifferent to the public verdict on the success of their undertaking, which will be clearly indicated in the rate at which they will be able to raise capital in the open market.

At the same time we cannot shut our eyes to the difficulties of the position. The capital to be issued by the Authority cannot have the Government guarantee behind it. If it had, it would be indistinguishable from a Government issue and would have all the disadvantages of a Government issue to which we have already alluded. The capital must therefore be issued solely on the credit of the Authority.

It is a further condition inevitably attached to the issue of this capital that it must rank after the whole of the Federal Railway Authority's debt to Government. There will thus be a first call for the payment of some 4 per cent. on Rs. 800 crores of Government capital before the interest on the new capital issued by the Authority can be paid. The new stock must therefore be regarded as speculative and may be found difficult to issue at a satisfactory rate of interest. This is a serious feature of the situation which should not be minimised. The speculative character of the stock will, however, diminish as a general reserve fund is built up and this appears to us, apart from such reputation for sound management as the Authority is able to acquire, to be the only assurance that additional capital can be raised at a satisfactory figure. We therefore feel bound to stress once more the importance of building up such a general reserve fund during the early years of the existence of the Federal Railway Authority. In the meantime it will be necessary to keep capital commitments down to the lowest point consistent with progress and efficiency. The position will of course be further assured if it is made clear that the new capital will have an equal call with the Government debt upon the depreciation and other funds to make good any deficiency in the annual interest.

If, as we hope, the Federal Railway Authority establishes its credit in such a way as to be able to raise capital at reasonable rates whether in India or in London, there is a further possibility which it is worth while to keep in mind. The public debt of the Government of India is held in part in terminable bonds. When these are repaid, it is as a rule necessary to raise fresh money to replace the repayments. Since so large a part of the public debt of India is in respect of the railways, it would be reasonable that the Authority should itself make good some proportion of the repayments by the issue of Federal Railway Authority stock. The extent to which this could be done must be a matter for decision at a later date. It will obviously depend upon the credit of the Authority and the extent to which it has been able to impress the market with the stability and the businesslike character of its management. We hope however that it will be a point of Government policy to assist the Authority in every way to assume its proper responsibilities in this matter. In this direction we see the best hope of a steady diminution of the capital responsibility of the Government in respect of the railways of India.

Before leaving the question of capital we feel that we should call attention to another feature of the present situation. The rate of interest paid by the railways to the Government is a variable figure ; it fluctuates upwards and downwards with the state of the market and the credit of the Government. It is calculated on principles which appear to us to be

entirely equitable, but under the new organisation the system has evident disadvantages. The rate of interest has been falling for some time, but the possibility of a rise cannot be left out of account, and in difficult times the rise might be substantial.

We doubt if it will be possible for the Federal Railway Authority to conduct its affairs satisfactorily under an indefinite burden of this kind, and consideration should be given to the possibility of replacing the present variable rate of interest by some fixed rate, which will relieve the Authority from the apprehension of an indefinite increase in its obligations wholly outside its own control. It would obviously be unfair to fix the rate of interest at its present level which may very well be the lowest point reached over a long period of years. If any action is thought possible, we suggest that some middle point should be selected and that the annual debt payment should be calculated accordingly.

219. *Government Audit.*—In view of the very large amount of Government capital which must for many years remain invested in the railways of India, it is inevitable that the Central Government should look to the Government Audit Department in order to assure itself that the accounts of the Authority are properly kept and that its financial policy is sound. The question of Government Audit will therefore call for the most careful consideration.

Section 190 of the Government of India Act lays down that the accounts of the receipts and expenditure of the Authority shall be audited and certified by, or on behalf of, the Auditor General of India, whilst Section 183 (1) of the Act imposes on the Authority the obligation of discharging its functions on "business principles". It would appear to be the intention of the Act that the Authority, in the matter of its accounts, should be subject to an audit of such a character as would be considered consistent with business principles in a commercial concern of the highest class.

We understand that from the outset all question of budget appropriations will cease. This is a factor of the first importance and should go a long way to simplify the work of the Audit Department. It will relieve the auditor from the responsibility of checking the expenditure against the budget, of following up discrepancies and of reporting on all excesses beyond budget figures. He will in fact be quit of what must be the most vexatious portion of his duties.

The new audit will in fact approach more nearly to the form of control at present exercised by the Government Audit Department over the accounts of Port Authorities. This, we understand, aims at giving the same assurance of sound finance as is provided by the audit of a railway company's accounts in Great Britain ; and it is accompanied by an annual report to the Authority calling their attention to any irregularities or doubtful points which may have been brought to light in the course of the audit. This practice seems to us to constitute a very apposite precedent for the audit of the accounts of the future Railway Authority.

The term "higher audit" is, we believe, not looked upon with much favour and in referring to it once more we do so with diffidence. It is, however, a convenient term for certain characteristics of the existing audit of Indian railway accounts. These characteristics seem to a very large

extent to have fallen into the background in the audit of the accounts of the Port Authorities and we would express the hope that this is a good augury of the spirit in which the audit control over the finances of the Federal Railway Authority will be exercised. The annual report which would be made to the Authority would be a most valuable guide to them. It will obviously be the duty of the Authority to take such action as is necessary on the Auditors' report and, if the action taken is inadequate in the opinion of the Audit Department, it will be open to the Department to qualify their certificate in any way in which they may think necessary. The Department will also have the right, and the responsibility, of reporting continued irregularities to the Governor General in Council. This however, it may be assumed, will be a last resort not likely to be exercised if the Federal Railway Authority conducts its affairs with ordinary business prudence.

Subject to the foregoing consideration, we anticipate that the Federal Railway Authority will be able to conduct its affairs without imposing upon the Government Audit Department anything comparable with the burden which that Department finds itself called upon to assume in the case of the existing railway organisation.

220. *Avoidance of Excessive Centralisation in Direction and Management.*—The Federal Railway Authority will, as we look at the matter, correspond in its functions to the Board of Directors of a large commercial concern. The members, apart from the President, will correspond to the part time directors of such a concern. They will not have an inside knowledge of railways ; indeed it is specially provided that no railway official in India shall sit upon the Board if he has held such a position " within the twelve months last preceding ".

It is clearly contemplated that the technical management of the railways will be left to the Railway Board and the existing railway administrations, who will however report to the Federal Railway Authority at periodical meetings and will make recommendations to the Federal Railway Authority on all matters which exceed the limits delegated to them by the Authority. From this point of view the Railway Board and the Chief Commissioner of the Board will represent the apex of the pyramid, the body of which is made up of the technical whole time staff of the railway administrations.

The Federal Railway Authority will naturally delegate large powers to the Railway Board. This delegation in the first instance will probably be on the lines of the existing delegation by the Minister and the Public Accounts Committee to the Railway Board. We are, however, of opinion that this delegation is at the present time insufficient and should be considerably extended, particularly in staff questions. There should also be more freedom in the preparation, submission and modification of the Annual Budget and we assume at the same time that the whole process can be very considerably expedited with the abolition of the need for sanctions by the legislature.

The question of increasing the powers delegated to the Agents of the individual administrations under the new regime will no doubt also come up for consideration. Having regard, however, to the necessity of uniformity in staff matters, particularly in such questions as pay, promotion, discipline, leave, etc., we do not consider that any notable increase is called

for in the powers delegated to the Agents. In our opinion, as we have indicated elsewhere, the defect of the present organisation, given the inevitable conditions affecting a large service in India, does not lie in insufficient delegation but in insufficient personal intercourse between the Board and the Officers of the individual administrations. We feel satisfied that if this shortcoming is effectively remedied, the present delegation of powers as subsisting between the Railway Board and the individual administrations should be satisfactory, and is consistent with efficient administration.

221. *Head Office of Federal Railway Auditory to be in Calcutta.*—We conclude by reference to two points to which, although they may seem of small significance in themselves, we attach considerable importance.

It is evident that the head office of the Federal Railway Authority must also be the head office of the Railway Board. It must be the object of all parties to secure the closest and most friendly intercourse between the new Authority and the business community of India. We are of opinion that this cannot be secured as long as the head office of the railways remains at New Delhi. Calcutta and Bombay stand out pre-eminently as the two most important business centres in India. We are of opinion that the head office of the new Authority (and of the Railway Board) should be located at Calcutta, and that it should either maintain a separate office at Bombay or hold a fixed number of meetings each year in that very important centre. The details, however, will have to shape themselves in accordance with experience.

The political importance of New Delhi must always make it necessary for the Authority to keep in close touch with Ministers and with Government Departments in that city. This will undoubtedly be one of the most important duties of the President of the Authority, and of the Chief Commissioner of the Railway Board, particularly during the sessions of the Legislature. We do not think, however, that this justifies the location of the new head office at a centre so far removed from the principal seats of business activity.

222. *Designation of Agent.*—As a last point, and to indicate the new and more exclusively commercial character of the railway undertakings when transferred to the control of the Federal Railway Authority, we suggest that the old and honoured title of "Agent", which has been borne by the Managers of Indian railways for so many years, should now give place to the more common business title of "General Manager". This title carries a more definite significance in the commercial world and its adoption will tend to obliterate such distinction as may have existed in the past between the railways and the business community.

CHAPTER XVI.

Summary of Conclusions and Recommendations : Acknowledgments.

223. *Summary of Conclusions and Recommendations.*—In the following paragraphs we summarise the principal conclusions and recommendations contained in our Report.

CHAPTER II.—*General Survey of Indian Railway Administration 1924-36.*

(1) We make a broad financial and statistical survey of the administration of the Indian state-owned railways since 1924. We con-

clude that their financial results are better than those of other comparable railway system, whilst their operating statistics indicate that there has been a substantial advance in efficiency and economy of management since the economic depression began in 1930. At the same time the survey indicates certain directions in which improvement might be effected. (Paragraph 22.)

CHAPTER III.—*Economies by Departments.*

(2) We make a more detailed survey of the economies effected between 1929-30 and 1935-36, so as to reveal their incidence over the individual railways both as a whole and by departments.

(3) The Engineering Department shows substantial economies (paragraph 25), but we recommend that further attention be directed to :—

(*i*) the examination on a unit basis of the number of men engaged on maintenance work (paragraph 28),

(*ii*) the introduction of motor trolleys and the employment of mobile gangs on maintenance work (paragraph 29),

(*iii*) the abandonment of fencing at places where it is unnecessary (paragraph 30),

(*iv*) the further reduction in the number of gatemen (paragraph 31),

(*v*) the reconditioning of fishplates (paragraph 32),

(*vi*) the use of welding for repairing bridge girders, points and crossings, and for reducing the number of rail joints (paragraph 33),

(*vii*) cheaper and simpler methods of signalling (paragraph 34).

(4) We show the economies effected in the Mechanical Department in respect of Maintenance and Supply of Locomotive Power (paragraph 36), and in respect of Maintenance of Carriages and Wagons (paragraph 40).

We make a statistical survey of the availability, user and stock of locomotives (paragraphs 37 to 39), carriages (paragraphs 41 to 43), and wagons (paragraphs 44 to 46), and conclude that :—

(*i*) the percentage of locomotives and of carriages under or awaiting repair is excessive [paragraph 47 (*a*)],

(*ii*) the percentage of wagons under or awaiting repair calls for investigation [paragraph 47 (*b*)],

(*iii*) better use of rolling stock should be made ; [paragraph 47 (*c*)],

(*iv*) the stock of locomotives and of carriages, and to a less extent of wagons, is in excess of requirements, and careful consideration should be given to proposals for the purchase of new stock [paragraph 47 (*d*), (*e*) and (*f*)],

(*v*) uneconomical units of rolling stock should be scrapped and written off unless replaced [paragraph 47 (*g*)].

(5) As regards workshops, we recommend that attention be given to the following matters :—

(*i*) the better planning and progressing of rolling stock repairs (paragraph 49),

(*ii*) a better standard of supervision and training by European supervisory staff (paragraph 50),

(*iii*) more immediate adjustment of staff to meet fluctuations in work (paragraph 51),

(*iv*) amalgamation of workshops for construction, as distinct from repair, of rolling stock, and concentration of specialised work (paragraph 52).

(6) As regards running maintenance, we recommend that attention be given to the following matters :—

(*i*) the strict limitation of repair work in running sheds to running repairs proper (paragraph 53),

(*ii*) better organisation of locomotive running repairs (paragraph 54),

(*iii*) hot boxes (paragraph 55),

(*iv*) reduction in number of examining points for carriages and wagons (paragraph 56),

(*iv*) improvements in buffing gear (paragraph 57).

(7) We consider the work of the Traffic (Transportation) Department shows efficiency and economy (paragraph 58). We recommend that attention be given to the following matters :—

(*i*) acceleration of passenger trains (paragraph 59) and of goods trains (paragraph 60),

(*ii*) improved operation by reduction of loads (paragraph 61),

(*iii*) the transit of traffic (paragraph 62),

(*iv*) the timing of goods trains and improvement of connections at junctions (paragraph 63),

(*v*) the turn-round wagons (paragraph 64),

(*vi*) the number of staff at stations (paragraph 65).

(8) We think there is a case for examining expenditure in the Accounts Departments and for considering the extension of mechanisation, both in connection with accounts proper and with the compilation of statistics. We recommend that the appointment of revenue between the state-owned railways should be made on broader principles. (Paragraph 67.)

CHAPTER IV.—*Further Possible Economies.*

(9) We recommend the continuance of the Economy Research Committees initiated by Mr. Pope, and suggest the following items, in particular, for attention (paragraph 68) :—

(*i*) work done by permanent way, station and clerical (including accounts) staff ;

(*ii*) use of rolling stock ;

(*iii*) system of wagon interchange ;

(*iv*) printing costs.

(10) We consider that the question of closing unremunerative branch lines or withdrawing unremunerative services should be further investigated. (Paragraph 69.)

(11) We recommend that the New York office of the Central Publicity Bureau should be closed, and suggest that the money thus saved might be diverted to the development of third class travel in India. We do not recommend any alteration in the London office of the Bureau. (Paragraph 70.)

(12) We examine the case for reducing upper class accommodation and combining first and second class accommodation, and recommend that these matters should receive the special attention of the Railway Board. (Paragraph 71.)

(13) We recommend that first class accommodation should be abolished on most branch lines. (Paragraph 72.)

(14) We commend the proposal to substitute two-berth coupe compartments for four-berth compartments for upper class travel. (Paragraph 73.)

(15) We consider that in many cases administrations have been too lavish in the past in their capital expenditure, and that in future justification for capital outlay should be based on an annual return of 10 per cent. on the capital cost involved. (Paragraph 74.)

(16) We come to the conclusion that a general cut in wages and salaries would not be justified as a means of economy at the present juncture. (Paragraph 75.)

(17) We consider it would be inequitable and unjustifiable that the new scales of pay should be applied with immediate effect to the existing staff, or that they should be applied on promotion from one class to another. (Paragraph 76.)

(18) We do not consider there is a case for reduction in the salaries of gazetted officers. (Paragraph 77.)

CHAPTER V.—*Present Administration : Some Criticisms and Suggestions.*

(19) We consider that the reduction of administrative posts has been carried too far and has seriously impaired the personal intercourse essential between the Railway Board, railways and the trading community. We recommend that the appointment of Traffic Member of the Railway Board be made permanent. (Paragraph 78.)

(20) We consider that the new scales of pay may prove insufficient to attract the right type of recruit in certain grades. If this should prove to be the case the scales should be revised. (Paragraph 79.)

(21) We review the position of the Accounts Department in the railway organisation, and recommend (paragraph 80) :—

(*i*) the Accounts Officers of the state-managed railways should be held responsible to the Agents ;

(*ii*) the accounts staff should be definitely railway staff and should be recruited for service in individual administrations ;

(*iii*) promising young men should be singled out for accelerated promotion by selection and examination ;

(*iv*) for filling the highest posts in the Accounts Department, candidates should be considered from other railways and from the Government Audit Department ;

(*v*) the direct responsibility of the Accounts Officer to the Agent should not prejudice his right to correspond, with the knowledge of his Agent, with the Financial Commissioner.

(22) Rules on establishment matters should be codified, and simplified as far as possible. They should be strictly observed and no exception should be made. We recommend that each Agent should have a Deputy with expert subordinate staff to deal with establishment matters. (Paragraph 81.)

(23) The establishment of the Federal Railway Authority will carry with it a change in the principles on which audit will be conducted, and we recommend that until the Federal Railway Authority is set up the function of higher audit should be confined to matters of major importance. (Paragraph 83.)

(24) We urge the necessity for adequate staff for preparing information needed to answer questions in the Legislature, and suggest that the Deputy Agent responsible for establishment matters should undertake this responsibility. (Paragraph 84.)

(25) We think that the divisional system of organisation is most suitable for large railways serving important points at considerable distances from headquarters. We cannot find that the divisional system of organisation is more expensive than the departmental system. (Paragraph 85.)

(26) We find that on some railways the Transportation Department maintains a budget separate from that of the Chief Mechanical Engineer for the running repair of locomotives. We consider this practice is undesirable, and that all expenditure on the repair of rolling stock should be controlled through the Chief Mechanical Engineer's budget. (Paragraph 86.)

(27) We recommend the extension of the purchase of railway stores through the Indian Stores Department. (Paragraph 88.)

(28) We recommend the extension of research to be carried out jointly by the Indian Stores Department and the Central Standards Office of the Railway Board. (Paragraph 89.)

(29) We recommend that, where this is not done at present, the Stores Superintendent should control divisional and outstation stores depots. (Paragraph 90.)

CHAPTER VI.—*Statistics.*

(30) We recommend that the existing system of statistics should be reviewed with the object of increasing their usefulness and reducing the cost of compilation. (Paragraphs 91 to 97.)

(31) We recommend that the periodical conferences of Statistical Officers, which have been discontinued since 1931 on the ground of economy, should be resumed. (Paragraph 98.)

(32) We recommend that a Statistical Officer should be reinstated in the Railway Board's Office, and that the statistical organisation of some railways, from the point of view of interpretation, should be strengthened (Paragraph 99.)

(33) We urge the need for a revision, in the interests of economy, of the system of workshop costs and statistics. (Paragraph 100.)

CHAPTER VII.—*Staff Discipline and Training.*

(34) We are of opinion that a vigorous campaign should be initiated to roote out dishonesty and incivility from among the staff. (Paragraphs 101 to 103.)

(35) We urge the need of improving staff training and education (paragraphs 105 to 113), especially by :—

(*i*) extending the scope of area schools (paragraph 106).

(*ii*) prescribing advance courses and examinations for subordinate, and selecting successful candidates for further training with a view to their qualification for special promotion (paragraphs 107 to 111).

(36) We recommend measures designed to inculcate in the staff greater interest in their work and a more active business outlook ; and in order to develop a greater interest in transport problems generally, we suggest that closer relations be established with the Institute of Transport and the Railway Research Service. (Paragraph 114.)

CHAPTER VIII.—*Measures to Increase Revenue.*

(37) We consider that, as a means of increasing revenue, the most urgent need is the development of the commercial departments of the railways (paragraph 115). This should include the appointment on each administration of a Commercial Manager of a status equal to that of other heads of departments, having under him a Rates and Fares branch, a Traffic Department branch, and a Research branch [paragraphs 116 (*a*) to (*d*)].

(38) We recommend a substantial development in advertising and publicity. [Paragraph 116 (*f*)].

(39) We are convinced that special steps must be taken to select and train commercial staff ; the desirability of appointing senior men at the outset from Great Britain should be considered. [Paragraph 116 (*g*)].

(40) We suggest as further measures of improving revenue (paragraph 118) :—

(*a*) an organisation to assist traders in the selection of industrial sites ;

(*b*) the extension of trade advertising on railway premises ; and

(*c*) the levy of economic rents for catering contracts.

(41) The case for a general increase in charges depends on trade conditions. At the time of our visit to India these conditions did not appear to us to warrant such an increase. (Paragraph 119.)

(42) We recommend that the surcharge on coal should be increased from 12½ per cent. to 15 per cent., with a maximum increase of Re. 1|- per ton. We touch on the question of a protective duty on South African coal as an alternative to the present rebate on railway charges for Indian coastwise coals. (Paragraph 121.)

(43) Individual rates should continue to be readily adjustable to meet varying conditions, but we cannot recommend any general reduction in charges. (Paragraphs 122 and 123.)

CHAPTER IX.—*Rates and Charges.*

(44) We recommend that the Railway Board should initiate a special enquiry into the system of charging at schedule rates with a view to simplification. (Paragraph 127.)

(45) We examine the effect of charging upon "discontinuous" mileage, and recommend that hard cases be dealt with by the quotation of station-to-station rates. (Paragraph 128.)

(46) We examine the suggestion that there is too wide a margin between owner's risk and railway risk rates, and we recommend that the Railway Board should examine the British practice with a view to the adoption of a similar practice suited to the special conditions of India. (Paragraph 129.)

(47) General complaint was made that rates favoured import and export traffic to the prejudice of indigenous industries; we feel such grievances can best be redressed by freer recourse to the Railway Rates Advisory Committee. (Paragraph 130.)

(48) Complaints were made that the outlook of railways in quoting rates is too individualistic. We think that the Railway Board should, through the Traffic Member, be prepared to deal with complaints of this kind, and that the Railway Rates Advisory Committee should be more freely called in by aggrieved traders. (Paragraph 131.)

(49) To facilitate quotation of foreign rates to the public we recommend that rate books should be kept at stations. (Paragraph 132.)

(50) We recommend measures designed to expedite the procedure of the Railway Rates Advisory Committee and to give its proceedings and decisions wider publicity. (Paragraph 133.)

CHAPTER X.—*Co-ordination of Road and Rail Transport.*

(51) We consider that no restrictions should be imposed on road transport which would unfairly hamper its development. (Paragraph 135.)

(52) We find that the regulation of road transport is inadequate and conditions are chaotic; that road development and maintenance suffer from lack of money; and that until these conditions are improved, and road and rail transport are both regulated as public services, co-ordination of transport is unattainable. (Paragraphs 136 to 138.)

(53) We consider that the existing statutory regulation of railways is suitable, and do not recommend that it should be altered or relaxed. (Paragraph 139.)

(54) We review generally the object to be aimed at in the regulation of road transport (paragraph 140), and recommend that regulation should be carried out by Provincial Governments in accordance with uniform principles enacted by the Central Government. (Paragraph 141.)

(55) We recommend measures of regulation, common to buses and lorries, in the interests of public safety. (Paragraph 142.)

(56) We recommend that licences should be issued in accordance with public need. (Paragraph 143.)

(57) We recommend that a system of road licensing be adopted for passenger vehicles, and that time tables and fares should be fixed ; and we set out the considerations to which the licensing authority should have regard in deciding whether a licence should be granted or refused. (Paragraph 144.)

(58) We recommend that a system of regional licensing be adopted for goods vehicles, and that statutory provision should be made in order that goods rates may be regulated at some future date ; and we set out the considerations to which the licensing authority should have regard in deciding whether a licence should be granted or refused. (Paragraph 145.)

(59) We recommend that the same system of regulation (other than rate regulation) should be applied to private lorries as to public lorries. (Paragraph 146.)

(60) In order to avoid hardship we recommend that all vehicles, whether passenger or goods, in use on the date of our report should be licensed without regard to the test of public need. (Paragraph 147.)

(61) We consider that legislative effect should be given to our recommendations by means of a Mandatory Act ; failing that we recommend that the Motor Vehicles Amendment Bill should be passed as quickly as possible. (Paragraph 148.)

(62) We find that police control is inadequate (paragraph 149), and that insufficient records of road traffic are maintained by the Provinces. (Paragraph 150.)

(63) We recommend that Provinces should aim at uniformity in the system of taxation of motor vehicles, and that the level of taxation should show due regard to the proportionate cost of providing, maintaining and policing the roads. (Paragraph 151.)

(64) For purposes of taxation private lorries should be treated on the same basis as public lorries. (paragraph 152.)

(65) We suggest that the most equitable basis for the taxation of goods motor vehicles is maximum laden weight. (Paragraph 153.)

(66) We recommend that as regards duty on fuel, diesel vehicles be placed on a footing corresponding to that of petrol vehicles. (Paragraph 154.)

(67) We recommend that trailers should be adequately taxed, and suggest that an appropriate level would be at one half the rate of a motor vehicle of equivalent maximum laden weight. (Paragraph 155.)

(68) The decision to construct a competitive road should rest with the Central Government and the Provincial Governments in consultation, and the responsibility of Agents should be confined to estimating the diminution in railway traffic which it would entail. (Paragraph 157.)

(69) Provinces should draw up a long term programme of road construction and settle in consultation with the Central Government the order of priority in which the works should be undertaken. (Paragraph 158.)

(70) We consider it essential that railways should have full powers, on the same terms as other road users, (*a*) to run road services ; (*b*) to invest money in or enter into working agreements with road transport undertakings ; and (*c*) to arrange road transport services through contractors. (Paragraph 159.)

(71) We think it regrettable that railways have made no attempt to establish themselves on the roads, and give our reasons for that view. (Paragraph 160.)

(72) We recommend that all railways should immediately examine the possibility of engaging in passenger road services and place their proposals before the Provincial Governments. Such proposals might relate to competitive as well as to feeder services. (Paragraph 161.)

(73) We recommend that railways should develop and encourage non-competitive and feeder freight road services, but that they should not engage in competitive freight road services. (Paragraph 162.)

(74) In recommending that railways should participate in passenger road services we suggest that they should either do so directly or obtain a financial interest in established services. As regards goods road services, the railways should arrange these through contractors. (Paragraph 163.)

(75) We urge the importance of voluntary co-ordination between railways and the more responsible elements in the road transport industry. (Paragraph 164.)

(76) We review generally the responsibilities which will fall upon the licensing authorities in the administration of the licensing system. (Paragraph 165.)

(77) We recommend that failing a Mandatory Act the Motor Vehicles Amendment Bill be amended as may be necessary to include all the principles which we advocate, and that it should be passed without delay ; and that the present police control should be strengthened. We suggest that Provincial Governments should encourage the railways to open up undeveloped country by means of road services ; and that the Central Government and the Provincial Governments should confer upon the lines of future co-operation. (Paragraphs 166 and 167.)

Chapter XI.—*Road Competition : Counter Measures.*

(78) We find that the loss of railway traffic due to road competition is in the neighbourhood of Rs. 4½ crores per annum, and we believe that if adequate measures are not taken to co-ordinate road and rail transport this loss may be doubled. (Paragraph 169.)

(79) As measures which we recommend the railways should adopt to meet competition for passenger traffic, we deal with :—

(*i*) faster passenger trains (pargraph 171),

(*ii*) better connections (paragraph 172),

(*iii*) more intensive services (paragraph 173),

(*iv*) improved amenities for lower class passengers ; (paragraph 175).

(80) We doubt the mechanical efficiency and the traffic value of small self-propelled units. Experience of the traffic value of small units can be obtained by using small steam locomotives and light trains. (Paragraph 174.)

(81) We deprecate any wholesale reduction of fares to meet road competition (paragraph 176). We consider fares should only be reduced locally to meet specific cases of diversion or threats of diversion (paragraph 177). We commend certain interesting experimental fares (paragraphs 178 and 179).

(82) We think that Indian railways should do more to develop traffic through booking agencies. (Paragraph 180.)

(83) As measures which we recommend the railways should adopt to meet competition for goods traffic, we deal with :—

(*i*) faster goods trains (paragraph 181),

(*ii*) more expeditious handling of goods at sending tranship and receiving stations (paragraph 182),

(*iii*) simplification of clerical formalities (paragraph 183),

(*iv*) development of collection and delivery services (paragraph 184),

(*v*) introduction of a special service similar to the registered transit service in Great Britain (paragraph 185),

(*vi*) the use of containers (paragraph 186),

(*vii*) the use of railway-owned refrigerator trucks (paragraph 187).

(84) We urge that, as modern conditions demand quicker transit, it is desirable to sacrifice full wagon loads or train loads in the interests of better service. (Paragraph 188.)

(85) We consider that a general reduction of rates to meet road competition would involve the railways in a heavy loss of revenue, and recommend that the railways should continue their policy of judicious reductions in individual rates. (Paragraph 189.)

Chapter XII.—*Public Relations.*

(86) We urge the importance to the railways of increasing their popularity. (Paragraphs 190 and 191.)

(87) With this object we recommend :—

(*i*) the institution of a Railway Information Office by the Railway Board, with appropriate staff at the main centres of population, in order to maintain adequate contact with the press, both English and vernacular (paragraph 192),

(*ii*) closer contact between Agents and Chief Commercial Managers on the one hand and the trading public on the other hand (paragraph 193),

(*iii*) the establishment of closer and more friendly relations between railways and Provincial Governments (paragraph 194),

(*iv*) the publication by the Railway Board of a popular edition of their Annual Report (paragraph 195).

Chapter XIII.—*Amalgamation and Redistribution of Railways.*

(88) We consider that amalgamation of railways, if carried out too far, will result in unwieldly administrations. We therefore confine our recommendation to the ultimate merging of :—

(*i*) the Eastern Bengal Railway with the Assam Bengal Railway, and

(*ii*) the Madras and Southern Mahratta with the South Indian Railway,

on the assumption that it will be the policy of the Government in course of time to take over the whole of the railway administrations. (Paragraph 197.)

(89) We recommend that any further exercise by Government of their option to take over company-managed lines should be deferred until the end of 1945 to give the Federal Railway Authority an opportunity of consolidating its position. (Paragraphs 198 to 200.)

(90) We consider that no amalgamation of railways is desirable at the present time. (Paragraph 201.)

(91) We consider that the policy of short options is unsound, and recommend that the Government should extend the contracts to dates as far ahead as practicable. (Paragraphs 202 to 204.)

Chapter XIV.—*Financial Outlook.*

(92) We urge the need for an adequate depreciation fund, and consider that a normal balance of Rs. 30 crores would not be excessive. (Paragraph 206.).

(93) We consider that a review of the estimated lives of wasting assets should be undertaken from time to time, and that the schedule of lives should be modified in the light of experience. (Paragraph 207.)

(94) Altnough the nominal balance of the depreciation fund has grown from year to year, we do not regard this as evidence that the annual appropriations are excessive. (Paragraph 208.)

(95) We refer to an additional charge of Rs. 1¼ crores per annum which will fall on the depreciation fund owing to a change in accountancy, and conclude that the appropriations to the fund should not be arbitrarily reduced. (Paragraph 209.)

(96) We urge the importance of building up a general reserve fund to serve as an equalisation fund for the payment of interest charges in bad years (paragraph 210), and from which monies could be appropriated for the amortisation of capital. (Paragraph 211.)

(97) Looking to the future, we do not think that railways, after providing for depreciation, are likely over a period of years to earn more net revenue than will serve to meet their interest charges. (Paragraph 212.)

(98) We consider that railways should no longer be looked to as a possible source of revenues for the relief of general taxation, but that every endeavour should be directed towards enabling the railways to maintain full solvency. (Paragraph 213.)

CHAPTER XV.—*Federal Railway Authority.*

(99). In view of the importance of the interests at stake, political interference in the affairs of the Federal Railway Authority must be avoided, and the utmost care should be exercised in the selection of its President and Members. (Paragraph 215.)

(100) The Authority should equally be free from administrative interference and, as we do not expect any surplus to be available for general revenues, the Government should in future confine its interest in railways to that of a debenture holder. (Paragraphs 216 and 217.)

(101) We examine the alternative methods open to the Authority for raising new capital required for railway development, and conclude that it should aim at establishing itself in a position which will enable it to raise capital in the open market. We suggest that consideration should be given to the possibility of replacing the present variable rate of interest applicable to railway capital by some fixed rate. (Paragraph 218.)

(102) We conclude, from the terms of the Government of India Act. 1935, that the Government audit of the accounts of the Authority will be of such a character as would be consistent with business principles in a commercial concern of the highest class, and we consider this to be the correct procedure. (Paragraph 219.)

(103) We consider that the Authority should delegate wide powers to the Railway Board. We do not think that further powers need be delegated to Agents, but recommend extended personal contact between the Board and railways. (Paragraph 220.)

(104) We think that the head office of the Authority and of the Railway Board should be at Calcutta, and that close touch should be kept with commercial interests in Bombay by establishing a branch office or holding some of the Authority's meetings there. (Paragraph 221.)

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(105) We recommend that the title of " Agent " should be replaced by that of " General Manager ". (Paragraph 222.)

224. *Acknowledgments.*—In our introductory chapter we mentioned that the Government of India had arranged that Sir Raghavendra Rau, at that time Financial Commissioner of Railways, Mr. B. M. Staig, the present Financial Commissioner of Railways, and Mr. A. E. Tylden Pattenson, Traffic Member of the Railway Board, should accompany us during our tour ; and we should like to express our indebtedness to these gentlemen for the services they rendered to us at our many interviews and discussions. From their personal experience they were frequently able to elucidate points that came up in the evidence placed before us and thus to ensure that the Committee appreciated their full importance.

We would also take this opportunity of giving expression of our gratitude to the Railway Board and to the individual railway administrations for the facilities placed at our disposal, which enabled us to see so much of the conditions of railway work in India, and also for their readiness in supplying all the documents and information required by us in the course of our enquiry.

Finally, we take this opportunity of expressing our warm appreciation of the services of Mr. L. H. Kirkness and Mr. B. M. Strouts, our Joint Secretaries, and of the clerical staff working under them. The Joint Secretaries have been untiring in their attention to the business of the Committee, and it is largely due to their efforts that we have been enabled to cover so large a part of India during our tour, and to make so full a use of our time, whether on tour or in Delhi.

R. L. WEDGWOOD,
Chairman.

W. A. STANIER.

H. CHEADLE.

A. FORBES SMITH,
Assistant to the Committee.

L. H. KIRKNESS, } *Joint Secretaries.*
B. M. STROUTS, }

The 1st June 1937.

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